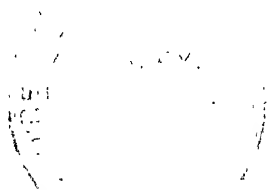


SECRETS OF DRY CLEANING

BY LESLIE E. FOSTER

A HANDY BOOK FOR AMATEURS
FULLY ILLUSTRATED

**THE GREATEST HELP EVER INVENTED
TO PERFECT PERSONAL NEATNESS
IS DRY CLEANING WELL DONE.**



**CLEANING AND
PRESSING
THINGS**



**OFTEN SAVES A
LOT OF
BUYING THINGS**



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Leslie E. Foster

**Member of National Association
Dyers and Cleaners**

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PREFACE

Practically all books on Dry Cleaning are written for the professional cleaner and the phraseology and cleaners' parlance is such that the average person cannot readily comprehend the meaning.

This book is not written for the professional cleaner, but for the average person who wishes to do his own cleaning for the purpose of economy. It will be invaluable to the person who contemplates taking up Dry Cleaning as a profession or to the Tailor or Small Hand Presser who is already doing cleaning in a small way.

Only simple methods and recipes, extracted from several years of dearly bought experience, the results of costly experiments with oils, acids and cleaning formulas, and thoroughly tested by the writer, all told in such simple words that even the most ignorant of the Art of Dry Cleaning may successfully undertake their own cleaning, will be discussed here.

Minute working details are given careful attention as well as the general principles which govern the methods used.

It is claimed that the greatest inventions are the simplest. This theory holds true in cleaning. Should there be several ways to clean an article, the simplest is always the best. Sometimes numerous chemicals are used in a compound. If one of these is a little inferior in quality or an incorrect proportion used, it might throw the whole process off a little and possibly soil or ruin a garment. If we eliminate the long tedious processes and do the job as well with less risk and in less time we are really treading on the heels of Efficiency. In this volume we have endeavored to give the simplest things and to avoid the long unsatisfactory methods of Dry Cleaning.

Many people are attempting their own Dry Cleaning, some times with disastrous results. To help these amateurs in every possible way to success is our honest desire. To fill a long-felt want for the common people, to dispel the

mystery surrounding Dry Cleaning and to help everyone conserve clothing, is the purpose of this book. Therefore, to aid them materially in the selection of their equipment we have given space to various advertisers who will be ready to lend every assistance and impart complete information regarding their wares should opportunity offer.

"Cleanliness is next to Godliness," and if a majority of the readers of this volume practise even a portion of its contents, the author will feel repaid for the time and trouble in writing these words.

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CHAPTER I

DRY CLEANING—ITS ORIGIN AND MEANING.

Nine out of every ten persons do not know what Dry Cleaning is. The common idea is this—that it is a mysterious process in which the cleaner throws some queer powder on the garments, shakes them a couple of times, says, "Presto Change!" and lo! and behold! there they are, all cleaned and ready to be pressed! Most people are entirely ignorant of even the basic principles of Dry or Chemical Cleaning. They cannot understand how the linings are cleaned as thoroughly as the outsides; how big fur overcoats weighing many pounds are dusted and perfectly cleaned; how flimsy net waists that the ladies can scarcely wear without tearing can be cleansed without the least damage; how colored silk dresses bespattered with mud and grease are renovated in a short time and made as new; how the big pile of clothing that the cleaner takes in every day, consisting of a dozen different styles, colors, and textiles of ladies' and gentlemen's suits, dresses, skirts, waists, laces, also corsets, furs, hats, veils, velvets, kid gloves, and slippers, fancy vests, draperies, feathers, shawls, sweaters, neckties, opera bags, cushion covers, raincoats, lace curtains, sashes, ribbons, and many other articles, all in various stages of grease and dirt, can be cleaned with-

•

out the least injury to color, fabric, or workmanship. A cleaner is compelled to clean and sometimes finish these garments in one day or sooner. A little ignorance or carelessness on his part might ruin the garments. However, if the cleaner is competent, the clothes will appear as new or even cleaner than when first worn. Some people consider it a little short of the miraculous that the garments can be renovated so thoroughly and it is indeed wonderful what can be done in this line.

If the reader will follow these pages closely he will not only be told how all these things are done, but will actually be shown how to cleanse all of them himself and with very small equipment if he so desires.

German Dry Cleaning, Swiss Dry Cleaning, Chemical Dry Cleaning, French Dry Cleaning or simply Dry Cleaning are all the same. Usually French Dry Cleaning is the term used because he was a Frenchman who discovered the process. The story goes that during a lovers' quarrel a can of camphene was spilled over a silken garment and beautifully cleaned it. This happened in Paris, France, about sixty years ago. The couple told their dyer about this, and he being an experimenter, immediately tested out this strange cleaning agent and soon hung out the first Dry Cleaners' sign. In a short time, gasoline and naphtha superseded camphene as the cleaning medium and it was not long before his competitors obtained this secret; but, mind you, only half of the secret of Dry Cleaning, the other half being that all garments to be cleaned must first be thoroughly dried or they would not clean at all. Hence the name, "Dry Cleaning." Many cleaners do not know this today, and cause an endless amount of trouble for their patrons as well as themselves by not drying their garments to be cleaned or drying their gasoline. In case of moisture in the garments or in the dry cleaning fluid, the white clothes turn a slight grey or yellow. Our best cleaners sometimes have trouble with a grey or yellow tinge in their whites and it is primarily the failure to keep their garments and gasoline dry. Remember this point in doing your own cleaning.

HAND DRY CLEANING

The organized cleaners do not like the idea of individuals attempting hand cleaning or anyone, even the tailor or hand presser, cleaning without a large equipment. There are several reasons for this, but we will not attempt discussion here. Many of the mistakes of these individuals are due to ignorance and carelessness on the part of the



operator. This book, if closely studied, will prevent those mistakes a second time. Any small cleaner who handles more than five suits a day should buy a small cleaning outfit to facilitate the work. The purpose of this book however is not to 'knock' the organized cleaners at all, but rather to co-operate with them, for we wish to help the amateur, no matter how small an equipment he may have. The methods shown here are adapted either for hand or machine equipments. Originally all dry cleaning was done by hand work and there is no reason under the shining sun why it cannot be done that way today if one so desires and the law does not forbid. The author himself cleaned by hand methods a whole year at one time, and knows of what he writes. Not once did he have any trouble with fires and explosions or difficulty in cleaning garments by these methods.

Of course no one should expect all hand-cleaning with very limited equipment to be as perfect in every respect as wholesale cleaning, where thousands of dollars are invested in up-to-the-minute machinery and where only experts for the various departments are in charge. But most everything that the Dry Cleaners are able to clean, can be renovated by hand methods if the necessary knowledge is applied and the proper work done on the garments. Particularly is this true among the light weight garments because of the ease in handling these clothes. Very heavy weight garments should not be dry cleaned by hand on account of their bulk. Do not think for a minute that cleaning is easy work, and that it does not require aptitude. Cleaning and



especially the spotting department of cleaning requires an infinite amount of patience, persistence, and skill. Mix this in with some common sense and grit and you can do all of your own work nicely.

Do not expect every garment to be cleaned like new. All cleaners will agree that some spots can never be removed; also that many articles can never be cleaned, especially certain silks that will bleed or that will not clean by sponging or dry cleaning. Consider the latter—a white silk that has turned grey or yellow through wear. The chances are, this will never be cleaned to be as white as the original.

Instead of being cleaned, it should be bleached, for which work consult Chapter IV. However, this is something very few cleaners have reason to attempt. Nevertheless, most garments will clean and clean well. Nearly all woolen and silken articles, unless ruined by acids and stains, will respond nicely to the dry cleaning process. The ordinary suit is covered with dust, grease, hair-oil, vaseline, face-powder, gum, street stains, candy stains, beer and wine stains, water and other like spots. Not all of these can be removed by dry cleaning. The grease, hair-oil, vaseline—anything of a greasy nature—will be dissolved. Other spots must be removed by different methods. All cleaners are bothered by such stains and must go over each garment dry cleaned to remove them. This may be done preceding the cleaning in some cases, chiefly with silks. Any one, even the most ignorant, can dry clean, but to remove these spots and stains, especially from the silks and delicate goods, requires expertness.

THE SEVEN STEPS IN DRY CLEANING

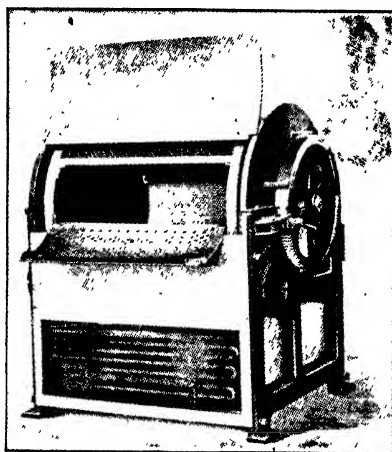
There are seven distinct steps to be observed in the process of Dry Cleaning. These are: **Drying, Dusting, Working in the Cleaning Fluid, Wringing, Deodorizing, Spotting, and Finishing.** We will take these up in the order named.

Drying

The best and easiest place to dry all clothing is in the sunshine. Many cleaners have dry-boxes or drying-tumblers but this is unnecessary for hand work. Hang them out long enough to be sure they are perfectly dry, and be certain that the white garments are the driest. We cannot emphasize too strongly the necessity of dry clothes in connection with Dry Cleaning. If the garments are the least damp before working in the dry-cleaning fluid, there will be no Dry Cleaning or any other kind of cleaning. To illustrate: thoroughly dry a dirty serge skirt and just before cleaning, moisten the hem. In finishing, there will be a clean, white skirt with a big black spot where the water-

mark had been. All the dirt from the skirt sought that one spot and by far the easiest way to remove it now would be with the scissors. So be sure your clothes are dry!

From the first day the author cleaned till the present time, he either has thrown a bag full of dry salt into or passed a large cotton rag through the gasoline in which he will place the whites, and although he has cleaned many white skirts, suits, furs, gloves, etc., he has never had anything turn grey or yellow. The salt or cotton rags will



(A Modern Drying Tumbler)

catch and hold all moisture, leaving the gasoline very dry, so to speak. Pretty sure of white clothes then! Moisture that is always present in the atmosphere will gradually be absorbed by any gasoline that is open to the air. Use plenty of rags!

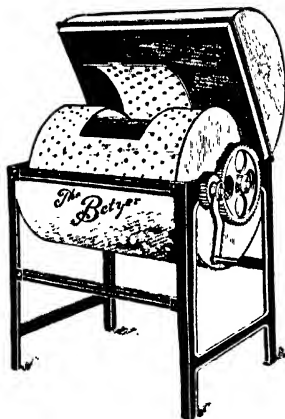
Dusting

Empty all pockets and turn them inside out. Brush off all the surface dirt that you can. Use a good stiff brush on suits and heavy articles. Beat the heavy overcoats and

other heavy garments. Shake the silks and delicate fabrics gently. All mud spots must be scratched off. A good job with the dusting will save a great deal of gasoline. Be careful about the buttons and trimmings and sew on any that are loose. If any are of glass, celluloid, or other substances easily damaged, remove them.

Cleaning

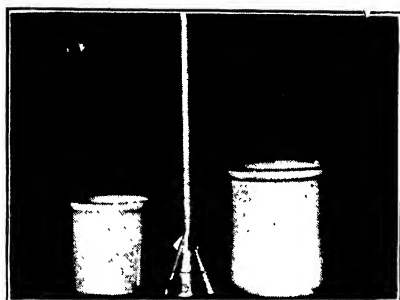
Now comes the cleaning proper or the working of the clothes in the fluid. It would be a fine thing if everyone



could have a hand washer large enough to hold at least a couple of suits at one time, but unless one does a great deal of cleaning, this would be impracticable, so we will consider the next best thing.

Take a five or ten gallon stone jar and pour into it enough gasoline to cover the article to be cleaned. Ordinary low test gasoline is the best for Dry Cleaning purposes. An ounce or two of chloroform or sulphuric ether mixed in with the gasoline will add to its cleansing power. Pass a

cotton rag through this fluid to remove any moisture. If you are going to clean lights or silks put in a little reliable dry cleaning soap, such as Putnam Cleaner, which can be bought at any druggists'. Directions as to how much to use will be given with the soap. Usually a teaspoonful to a quart of gasoline is sufficient. Beware of too much soap as it is hard to rinse out, if more than enough is used. Ap-



ply this soap directly to the bad grease spots and principally around the hem of white skirts, rubbing in well. Articles that are badly soiled should be soaked for some time in a soap solution before they are cleaned. Paint spots should be well loosened with chloroform or turpentine. Place the lightest colored and the least soiled clothing in first the same as you would if washing with water. In this way you may wash a number of articles with the same fluid. Now with a small hand brush (better still a suction funnel-shaped dasher which sells for about one dollar at any hardware—see illustration), work in the liquid for several minutes. If clothes are light-colored, work ten to twenty minutes. Now rinse thoroughly in clean gasoline, if possible, a second time for if any soap is left in the goods it will draw the dirt and dust miraculously. For this reason do not dry clean at all unless you rinse properly.

The suction cleaner mentioned above is a dandy and the writer has known small cleaners who cleaned six and

eight suits a day to use it with marked success. Many large cleaners use it for their dainty garments. By using enough fluid to cover the clothes, this machine when brought down and then lifted quickly, forces the gasoline by the suction process to be drawn up through the garments. This is the principle of Dry Cleaning—to have the gasoline get at and be forced through every thread in the clothes. The gasoline is a solvent and slowly dissolves all grease and oil. So if you can, buy one of these simple little machines. Large plants have washers similar to the laundry machines with which we are all familiar. The revolving cylinder causes the clothes to be dropped into the liquid and to pound out as well as to dissolve the spots. In this way large garments can be cleaned with marked success.

Wringing

Wring the garments by hand. Do not use a rubber wringer as the gasoline will ruin it, unless the article is of light weight, such as a crepe de chine waist, and is placed between the folds of a clean, dry turkish towel which will serve to absorb the dry cleaning fluid. In power plants the cleaners have an extractor which wrings clothes perfectly by centrifugal force. Hand wringing will do if one takes care not to twist the delicate garments out of shape.

Deodorizing

Precaution—NEVER HANG CLOTHES IN A ROOM OR NEAR A FIRE OF ANY SORT, ALWAYS OUT OF DOORS AS THE VAPOR FROM THE GASOLINE IS VERY INFLAMMABLE.

The second drying of the clothes, that of deodorizing, is as important as the first. Cleaners having small plants and some of the large ones, lose many customers on account of the odor left in clothing. This odor is not truly that of gasoline. It is worse, being a combination of odors. There is no reason for this if one is careful. There are several causes for this odor—rancid gasoline, insufficient drying of the clothes before cleaning, wet gasoline, too much soap

and not enough rinsing. No amount of heat and airing will remove the odor of rancid gasoline. It is in the clothes to stay for months. The home or individual cleaner is fortunate in that he has good pure gasoline with which to work. If he is careful about the first drying, careful about the soap, a little sunshine and air will take out all the odor, in a short time.



(A Modern Drying Room)

Do not throw away the gasoline after it is dirty. Cover it well to avoid evaporation and let it settle, then pour off the clear liquid for a second cleaning. To hasten settling, add a little ammonia and stir well. This will also add to the cleansing power of the gasoline.

Finishing

After the odor is out of the clothes, look them over for any spots that dry cleaning did not dissolve. The "sweet spots" to use the cleaners' parlance, will be left. On woolens, most of these can be removed by a little water and if need be, a little soap rubbed on with a cloth to match

the color of the goods being worked on. A few drops of acetic acid in the water makes a splendid spotter, for it serves to set and freshen the color as well as to aid in dissolving these sweet stains. If soap is used always rinse afterwards with plain water. Spotting is a big subject and will be treated as such later on. Suffice it to say that ninety-five percent of the spots will be removed either in the dry cleaning bath or in the water spotting. Read the chapters on Sponging and Spotting and become perfectly familiar with each method before attempting any difficult work. Many silk waists and dresses have to be sponged and also spotted.

BAGGING DELICATE GARMENTS.

All delicate garments such as silks and laces, neckties, ripped-up dresses and also small articles that might be easily lost should be bagged before Dry Cleaning. This is to prevent any wearing or tearing and will aid in the handling of these articles, and is also the practice of all good cleaners who use machine methods but does not apply so much to hand cleaning unless the garments are very delicate. The bags may be made by sewing up cheesecloth, twelve inches by eighteen inches with an opening at one end. Tie up this opening securely after placing in the garments. Bags that will stand a lot of wear may be bought from any good Dry Cleaner's Supply House.

HANDLING GASOLINE.

Do not be afraid of gasoline. It is harmless as a liquid. An open bucket of gasoline will burn slowly and with no explosion. It is volatile, however, and the danger in handling gasoline is in its vaporization. High test gasoline is more volatile than low test gasoline and for this reason it is better to use the latter for dry cleaning purposes. Should the fumes be held in a room or building or in the manifold of an engine and the proper mixture of oxygen present and a lighted match or an electric spark introduced, an explosion will undoubtedly occur. It is not combustible unless just

the proper amount of air—not too rich nor too thin—is mixed in with the vapor. It is conceded that gasoline vapor has seven times the power of gun powder as an explosive. This vapor is heavier than the air and goes down instead of up as in the case of water vapor. This is very deceptive. One will never have any trouble if one chooses sunshiny days and all the cleaning and deodorizing of the clothes is done entirely out-of-doors and kept away from fire.

Never clean on damp or wet days. There are two reasons for this. First, one will not be able to dry the clothes perfectly; second, after having been dry cleaned, it will be difficult to deodorize them unless one resorts to taking the clothes into the house, WHICH ONE MUST NEVER DO.

In case of a gasoline fire do not throw water on the blaze as this is heavier than gasoline and goes to the bottom leaving the gasoline burning on top and the fire hotter with the added oxygen from the water. Carbon tetrachloride dashed over the blaze will put it out or even a blanket or quilt thrown quickly over a small fire will often smother it.

HOT AND COLD GASOLINE.

Warm or hot gasoline will not remove dirt more easily and quickly than cold. Many persons who claim to be cleaners, believe the opposite, but their only reason for this assertion is from the fact that water is a better cleanser when warm. Water and gasoline are two distinct and widely different solvents. You may heat water and with the aid of soap have the best cleaner known, far better than if cold, but not so with gasoline. Heat it and all you get for your trouble is loss through evaporation and many obnoxious fumes to inhale.

Above all things, remember these two points about dry cleaning! Dry the clothes and gasoline before working in the liquid and keep away from fires while cleaning. These are the two cardinal points in Dry Cleaning that many of the professionals today seem to have forgotten, and the two things that will spell Success to individual cleaning!

CHAPTER II

Miscellaneous Dry Cleaning

GLOVE CLEANING.

Perhaps there is no phase of the Dry Cleaning business that the average cleaner dislikes as much as the cleaning of white kid gloves, and possibly no phase of the business that is so poorly handled. Perspiration stains and water marks appear to be the sum and substance of the trouble. No one formula seems to be good enough for all gloves, that is why it is wisdom to have several preparations at hand.



Directions for Hand Cleaning White Kid Gloves:

Dry the gloves thoroughly, soak for fifteen or twenty minutes in a mild solution of gasoline and benzine soap, then brush the dirty spots and finger tips briskly with a glove brush. If you do not have this, use a common finger brush. If this does not clean them, use a few drops of wood alcohol on the perspiration spots and brush as before, being sure to keep the gloves moist in the gasoline. For convenience in rubbing, use a finger stick. This is a com-

mon stick the shape of a finger and can be easily made by whittling a bit of wood smoothly to fit in the glove fingers. Now brush thoroughly all over again with the benzine soap solution, then brush in clean gasoline for rinse. Press out all surplus gasoline, lay on a clean, white cloth and rub out smoothly. Dry by hanging in the open air. Finish by dusting well in talcum powder. If you wish to give them a new appearance dry on a frame shaped like the hand. Have patience on the very dirty gloves and over ninety-five percent can be cleaned by this method.



If, however, they do not clean up well after two or three such treatments, try any of the formulas given below. Always be sure to rinse well. Remove all traces of soap and this will be a great aid in turning out soft, white gloves.

A Good Glove Formula:

Mix in equal proportions, alcohol, benzine, and benzine soap. Shake well. Apply on the perspiration spots, rubbing well during the process of dry cleaning.

To Soften Gummy Finger Tips:

Make a solution of equal parts of neats-foot-oil, benzine soap and benzine. Shake well and apply on the finger tips alternating with grain alcohol during the process of dry cleaning.

General Perspiration Remover:

Equal amounts of chloroform and benzine soap. Enough wood alcohol to settle. Shake well and brush the perspiration stains in conjunction with wood alcohol.

Another Good Formula for Glove Cleaning:

Neats-foot-oil 6oz.
Chloroform 3oz.
Aqua Ammonia 1oz.

Shake well and rub on the soiled spots, keeping the gloves damp in the gasoline.

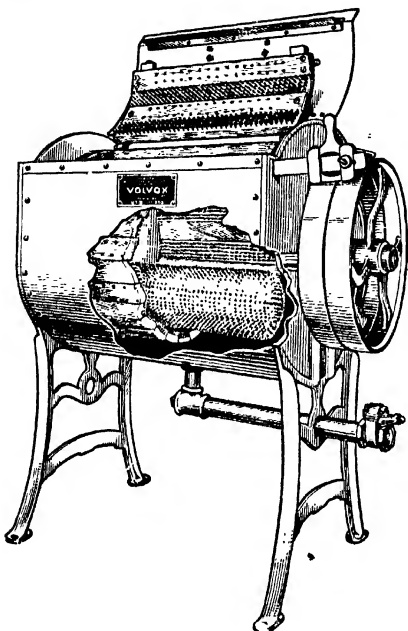
Hand Cleaning Colored Kid Gloves:

Use the same process as for cleaning white gloves, only eliminate the soap solution and substitute colored talcum powder, in place of white powder. Use the same shade of talcum as the gloves. The tips or worn spots will bleach to some extent. A very little vaseline on these spots rubbed out smoothly will restore the lost color. Colored glove cleaning is not satisfactory on this account as it is difficult to restore the color lost in bleaching. Some cleaners use dry dyes to bring back the lost color but this takes expert work and gloves dyed by this method do not retain their color.

If kid gloves turn grey in cleaning it is a sign of moisture on the gloves or in the gasoline.

If kid gloves turn yellow, the soap is remaining in the

gloves absorbed by the leather. Either use less soap or, rinse better.



Any well equipped plant should have a glove machine to facilitate the work in this department. The Volvox Glove Cleaning Machines are employed by the best cleaners and meet the needs of the most exacting.

KID SLIPPER CLEANING.

Brush the kid slippers with a good benzine soap solution but do not let the liquid get down to the soles as the tanning will run up on the white kid and turn it yellow. Work quickly in the soap solution, then rinse and wipe

dry. Sprinkle the slippers with flour or better still, plaster of paris. This will absorb any moisture in the kid. Rub with a white cloth from time to time as they are drying. Let dry in a cool place. If you accidentally get the yellow color from the tanning on the kid, rub constantly with flour or plaster of paris until the coloring is gone. Always dry without artificial heat.

Another simple method consists in making a paste of pulverized magnesia and gasoline. Rub this over the slippers and let dry. Finish by rubbing with a white cloth.

DRY CLEANING FEATHERS.

Feather cleaning is a little difficult for the amateur cleaner, but if directions are followed and possibly a try-out on an old feather is made, one cannot help but succeed in cleaning them. Have patience and common sense and do not expect too much from dry cleaning feathers, for many feathers are too dirty to be cleaned in any way except by wet cleaning.

Prepare a mild soap solution by dissolving some reliable dry cleaning soap in gasoline. Place the feathers on a clean board or plate, and with a very soft brush rub the soapy gasoline well into the feather. Always brush from the stem straight out to the edge and never brush backwards for this will ruin the feather. Continue this brushing until the feather is cleaned, then rinse with clear gasoline with the same motion until the feather is free from soap. Now lay the plume on a clean plate and sprinkle with good talcum powder. Feather starch is better if you can get it. This is very white and finely powdered. In the case of using the starch, next dip the feather back into the gasoline and gently shake until the starch is dissolved. Rinse again in clean gasoline. Take out and dry by gently shaking or placing in front of a fan. Many cleaners in finishing feathers place them in a suit box with some white talcum powder and then shake the box working the powder well into the feathers. This powder must be beaten out of the feathers later; the more they are beaten the fluffier they will become.

WHITE FUR CLEANING.

Most cleaners differ in regard to cleaning furs. The simplest method is always the best. The following is a very simple but effective formula and has never failed the writer.

Mix up a good solution of benzine soap and gasoline. Clean settled gasoline is preferred to white gasoline because it has a better cleansing power. Pass a cotton cloth through this to insure dry gasoline, for any moisture in the cleaning fluid will harden the leather. Add two ounces of chloroform to this. Place in the furs which of course must be thoroughly dry. The lining or at least the cotton padding in the muffs should be removed to make the cleaning and drying more effective. Now work the fur with the hands for fifteen or twenty minutes. Then let soak for half an hour. Use the suction washer on them for ten minutes or run them in the machine for that length of time. Now wring dry and rinse in clear gasoline. Be sure to rinse thoroughly as much depends on the rinsing if one wishes a fluffy white fur. Wring and hang in the sunlight until odorless. A minute or two in the drying tumbler helps to fluff them. Beat and brush until fluffy, then sprinkle with and rub in a good talcum powder. Brush out the talcum after several hours. Replace the linings and the furs will be ready to wear.

COLORLED FURS

Clean the same as the whites. If the furs have a dead look, mix an ounce of alcohol with the cleaning fluid. Do not sprinkle in white talcum in finishing. Beat and fluff well.

HOW TO PREVENT RINGING

When brushing off spots from a dirty suit, place a little common salt in the bottle of gasoline and let stand a few minutes before using. Always keep the bottle fairly well filled. Salt does not add strength to the gasoline but it prevents rings because it will collect and hold any moisture

in the bottom of the bottle. Dry gasoline will never show rings if the garment worked on is dry. Of course be sure then that the suits you are working on are dry also or the salt will do little or no good. Should a ring appear, work around it with wood alcohol and repeat the above process.

When giving suits this first aid treatment, do not simply dash the gasoline over the spots and let stand, but rub the spots out well. In any spotting whether with water or gasoline always make it a practice to rub the spots out until you cannot discern the difference between the dry cloth that surrounds the spot and the spot itself. In this way you avoid much trouble.

HOW TO SPONGE OR SPOT SUITS

Brush the garments well and empty all pockets free from dirt and other accumulations. Have a bottle of gaso-



line and a cup of pure water handy, also a woolen rag the color of the garment to be spotted. To do a first class job, place a blotter or cotton pad under each portion worked on to catch any grease that is dissolved and rubbed through. The gasoline is a solvent for all grease and oil spots and will brighten any portion of the garment that it

is used on; the water will dissolve any 'sweet' and starchy stains such as dough, candy, jell, etc.

After working over the entire garment carefully with these two solvents, hang it up in a good light so you can see any spot that has been overlooked. When completed, hang in the open air until odorless, then press.

Many cleaners will sponge the whole suit with gasoline, then dry and work over the garment with water for any 'sweet' stains that may remain.

VELVET AND PLUSH CLEANING.

Do not use gasoline soap on plush and velvet when dry cleaning. Velvet may be wet washed when it is too dirty for dry cleaning, but many of the hard sweet spots may be water sponged afterwards, and thus avoid wet washing. In steaming velvet the less handling the better. Rub but one way with as much speed as possible and the least amount of water. Do not extract but hang up carefully to dry.

To raise the nap and to brighten the luster on plush, use one pint each of benzine, grain alcohol, and ether. Apply with a soft sponge and rub in one direction, usually up as the nap will gradually work down.

Velvets and plushes are cleaned with marked success by sponging with gasoline only. Particularly is this effective when a rush job is wanted and the garment is extra heavy for the dry cleaning process.

LACE CURTAIN CLEANING.

Many lace curtains may be dry cleaned. In this class are those having colors that will fade in wet cleaning and those that are simply dusty and with no real bad spots. If rough treatment will be used, the curtains should be bagged. The regular method of dry cleaning told in a preceding chapter should be followed. The pleasing thing about dry cleaning lace curtains is that no shrinkage will occur

and the sizing will not be lost as in the case of wet washed ones.



All curtains that are very dirty and that need a good bleaching must be steam cleaned (see article on steam cleaning). Add a little bluing in the last rinse to help

bleach them. Hang in a good sunlight to dry. Measure the curtains before wet cleaning and when nearly dry, stretch on a frame to the exact length and dry thoroughly in this position. A little starch may be added in the last rinse also if one so desires.

CHAPTER III

Wet Cleaning

The garments to be considered under this head are those that should never be dry cleaned such as the goods that contain rubber, including raincoats, auto tops, etc., and those articles having fast colors so soiled that the dry cleaning process will never thoroughly clean them. In the latter classification, however, the goods are usually dry cleaned, then steam cleaned and finally dry cleaned for a nice finish. This may include woollens, cottons, silk, palm beach and linen. The weighted silks such as taffetas should not be steam cleaned but sponged only. (See article on sponging).

In all wet cleaning remember that soft water is usually to be preferred to ordinary hard water but sometimes the latter is better as it will not bleed delicate colored garments as quickly as soft. Usually hard water contains impurities of some kind. These may be removed by boiling with a cotton cloth which will absorb any such impurities. If it is not boiled the water should at least be filtered or strained to make it clear and pure.

The common method of testing water is by wetting and rubbing the hands together. With soft water the motion will be smooth and easy and the feel soft and velvety while with hard water the motion will be jerky and difficult and the feel, hard and harsh.

Another simple test is to try to lather Ivory soap in it. In hard water it will scarcely lather; in soft, it will lather quite freely.

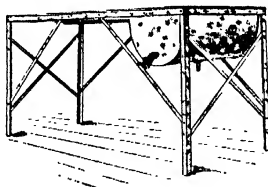
It is important that good soap be used; rather use poor water than poor soap. Many and varied are the soaps employed for this use and while most any good neutral soap works well with either soft or hard water, there are two of

the common soaps, Ivory, and Fels-naptha, that work extra well.

Ivory Soap is excellent for raincoats, white woolen goods and silks. Fels-naptha seems to have unusual powers for dissolving dirt from badly stained woollens and cotton fabrics.

How to Make a Soap Solution:

The best and also the quickest way to make a soap solution is to chip or shave a bar of soap into a pail of boiling water and let it slowly cool, stirring now and then. When cool it will be thoroughly dissolved and just' right for use. About one pint of this mixture to ten gallons of water is sufficient. It will mix readily in luke warm water and slowly in cold water. Add more soap if necessary as these scraps, no matter how strong, are not injurious.



To do steam cleaning correctly one should have a scrub table somewhat similar to the one shown in the illustration; one end is slightly lowered for convenience in running off the dirty water. Two good scrub brushes are necessary,



one for the heavy clothing and the other for the more delicate fabrics. If a scrub table cannot be secured, use a big

tub and wash board or any sort of board on which the garment can be spread and the obstinate spots soaked and rubbed .

The article that is always steam cleaned and never dry cleaned on account of the rubber it contains and that usually is the hardest to steam clean is the rubber rain coat and we wish to treat this subject first.

RAINCOAT CLEANING.

Remember that a cheap raincoat like any other cheap garment will not clean as easily or as thoroughly as one of good quality. Some people expect to have their two-dollar raincoat look like a twenty-five dollar one when they take it to the cleaners'. It cannot be done. We will consider fairly good raincoats in this article.

Mix up a bucket of good neutral soap solution by dissolving any good soap in warm water. The ordinary chip-ped soap is excellent or if this can not be procured Fels-Naptha or Ivory Soap is good. If hard water is being used, a pound of Wyandotte Soda to twenty gallons of water will soften it. The water need never be hot as colors are more apt to run in it. Have it about luke warm and not too heavy a solution or there will be trouble in rinsing the garment. Place the raincoat full length on the scrub table and with a penetrating scrub brush (the common rice straw brush is excellent) apply the soapy solution. Start with the front of the coat and work completely around it, scrubbing both sides of the arms when reaching them, also the collar. When the outside is finished, work the inside in a similar manner. Rub every portion of the coat with vigor and should the article be very dirty go over it a second time applying your energy mainly on the soiled spots. When convinced that the coat is clean inside and out, you are ready for the rinse. In reality the rinse should be ready for you. Remember all wet cleaning, especially raincoats, should be done quickly. Stick to the job when once at it. No answering telephone calls or visiting. This is essential.

Two or three rinses are required. Rinse until all trace of the soap is entirely out is a good rule to follow. If any soap should be left in the garment it will show plainly when dry and give a very dingy and streaked appearance to the garment. The writer has seen garments almost ruined by insufficient rinsing. Have the first two luke warm and the last one cold. Dissolve a handful of sal soda in the initial rinse of ten gallons to aid in removing the soap. In the final rinse put acetic acid to set the color and give the garment a fresh appearance. A teaspoonful to every two gallons of water is about the right proportion. However should you give insufficient rinsing and streaks appear, go over these with the sal soda solution or better still wash and rinse a second time.

Wring out the article by hand and hang in a cool place to dry. Never use heat in drying rubber goods. All other goods may be dried in the sunlight. See to it that all water is out of the pockets for if left in, rings will appear that are almost impossible to be eradicated.

CLEANING OF WOOLENS, PALM BEACH, AND COTTONS

The method of cleaning these garments is practically the same as that of raincoat cleaning. Dry cleaning should always precede the steam cleaning of these garments, so all the grease and like stains will be removed. Usually the job is very simple. Remove all trimmings which have colors that will run or any buttons that will be damaged by water. In colored goods be careful about using too much soap or too hot water as this will cause the color to bleed. White woollens can be cleaned more quickly with a solution of ammonia, soap and water. The simplest and best method of drying the whites is to hang them in the sunlight as this tends to bleach them.

Do not hang up sweaters, knitted caps or shawls, etc., after they have been steam cleaned, as they will draw out

of shape. Instead, wring them as dry as possible and lay out smoothly on a clean box or barrel and let dry in this position.



In the cleaning of dainty cotton summer dresses be careful that the garments can withstand water. That is, see that the color will not bleed and that the fabric will not tear. Usually some trimmings and buttons must be removed from these articles. Use only the softest brush or a sponge and if the garments are very delicate, work in the soap solution and rinse with the hands only. Dry in good sunlight and press on the wrong side while slightly damp.

During the process of steam cleaning the whites, the potassium permanganate and sulphurous bleach may be used as well as the oxalic bleach on the obstinate spots. Fusel oil also may be used on the paint spots or a mixture of chloroform and fusel oil and the unpleasant odor of this oil well rinsed out. Palm beaches are very obstinate, and clean nicely only with the hardest kind of rubbing and brushing. Beware of too hot water or heat wrinkles will appear which cannot be pressed out satisfactorily.

The order of handling the pants for steam cleaning is practically the same as that of spotting and pressing. Work around the waist with the soap solution commencing with the fly. Then lay them full length, legs together. Scrub the upper side of the top leg, then the upper side of the bottom one, turn the trousers over and proceed as before, thereby getting all over the legs with the least amount of time and energy expended. The knees usually are the dirtiest so give them an extra scrubbing by laying them full length fly up and soap them thoroughly.

HOW TO AVOID SHRINKAGE.

All garments steam cleaned and particularly woollens will shrink. To avoid a great shrinkage use the soap solution and rinses about the same temperature. A woolen garment changed from a hot to a cold bath will shrink much more than if changed from luke-warm to luke-warm or from luke-warm to cold.

WET CLEANING SILKS.

In cleaning silks by the wet process we have in a general way, two classifications, which are, the weighed and underweighed silks. The underweighted silks such as china silk, georgette crepe, crepe de chine, etc., may be steam cleaned, that is, washed in soap and water, the weighted silks, such as taffetas, must be sponged, for if steam cleaned, they will split or be damaged beyond repair. Many times all the underweighted silks need is a thorough sponging. This is always the safest method to employ if in doubt. Silks containing sizing should neither be steam cleaned nor sponged for water will ruin this sizing so that no amount of skill will restore it.

All silks or delicate garments must be treated with extreme care as rough usage will injure such fabrics. In this connection, a very soft brush should be used and in no instance should one scrub them as in the case of heavy clothing. Rub only in one direction so the bristles will not catch and tear out any of the threads. Many cleaners find

it convenient to use a large sponge in place of the scrub brush on the most delicate textiles.

How to Proceed in Steam Cleaning Silks:

Use a good neutral soap in all silk cleaning. Ivory or Castile are good. When possible have a bath of soft water. Heat it to luke-warm temperature and soak the underweighted silk in this for ten or fifteen minutes according to the condition of the article, rubbing the soap well into the garment with the hands. Sometimes a light brushing may be advisable. Use only a very soft brush. Rinse in luke-warm water when sufficient washing has been done. Extract or press the water out well by hand and hang up to dry. Either press on the wrong side when almost dry, or let thoroughly dry and dry clean and then press. Dry cleaning after sponging or steam cleaning often renews the cloth and brightens the luster and is the practice of the best cleaners. All colors of silks cannot be cleaned in this manner. It is well to test the garment by dipping in a portion of it, before immersing all of it in the soap and water.

Should one be compelled to clean a bright or many colored silk, set the color or dye by dissolving a few drops of sulphuric acid to a gallon of water and dipping the garment in this. Many silks will bleed too much to admit of any wet cleaning.

If one is in haste, place the article within the folds of a turkish towel and run through a wringer, as has been suggested in another connection. With a very little airing now the garment will be ready to press.

HOW TO STEAM CLEAN DELICATE LACES

Baste any clean white cloth over a large bottle and sew the delicate lace to this cloth. Rub the lace gently with soap and water using the hands to work in the suds. If this method does not clean the lace, place the whole bottle in the suds and boil. Rinse well and hang the bottle and all in the sunlight to dry.

HOW TO REMOVE COLORS WHICH HAVE RUN ON SILKS OR WOOL.

The following method usually is successful in the removal of trimming color which has run over the entire garment.

For example, take a white crepe de chene waist with cuffs and collar of green. This color has run slightly into the white silk. If possible remove the collar and cuffs. Now get a bucket of very hot soap solution. This can be made by dissolving a cake of castile soap in boiling water. Have three buckets of cold water near. Take the waist and dip into the hot soap ten or twelve times. Now immediately go to the cold water and rinse several times in each bucket. Wrap in clean cloths and press out the excess water. Hang up to dry. This method succeeds where all others fail.

HOW TO CLEAN CROCHETED BED SPREADS.

If these are made from white or cream colored cotton material, they must be steam cleaned. Dry cleaning will remove any grease or oil but will not clean and bleach them as will water or render them bright as they were originally.

These may be successfully cleaned in a small hand washer using warm water and soap. They are a little bulky for hand work. Be careful that the machine does not tear or stretch them out of shape. When washed for twenty minutes, rinse in luke-warm water and then rinse again in a slightly blued water for the bleaching. Hang in a bright sunlight until thoroughly dried. If the spreads are hung up straight in drying they will require no pressing.

SPONGING OF GARMENTS.

One of the biggest secrets of Dry Cleaning is 'Sponging' garments instead of or in conjunction with Dry Cleaning. Many clothes, especially silks and like articles that are spotted by water, are taken to the dry cleaners by the good housewife who has already washed them in gasoline but has not thoroughly removed all of the spots. The individ-

ual cleaner does not understand why the garment is not perfectly cleaned and imagines that the practical dry cleaner has some wonderfully complicated method of removing these spots. If the patron could follow her garment into the spotting room of the average dry cleaner, she would be amazed at the simplicity of cleaning the garment she had nearly given up as ruined on account of being water spotted. The cleaner uses only plain water and a sponge! At least that is the big end of it. A good cleaner can take the ordinary garment, steam clean or sponge it, and after finishing, make it appear as having been dry cleaned only. To learn all the tricks of this trade-secret would take a long time and a great amount of practice, but a simple waist or a plain silk skirt or dress can be cleaned with very little application.

Sponging Silks

Nearly all silks can be sponged. Those that cannot, are silks with colors that will bleed very easily, silks that cannot be pressed successfully after being wet, and silks that are too delicate and aged to withstand water. Many silks that could not be washed in soap and water may be renovated by sponging.

Good crepe de chine, crepe de meteor, taffetas, jersey, georgette crepe, messaline, etc., are all easily sponged. Before sponging any colored silks, it is well to see if the dye will bleed by testing a small corner or hem of the garment with water. If much of the color is removed, it is inadvisable to proceed unless you are experienced. Trimmings, such as fur, plush, fancy colored braids, and anything else that is likely to be ruined by water must be removed. Silks are generally sponged after dry cleaning although it is not absolutely a set rule. The dry process will remove all grease and oils and loosen many other spots, leaving the starch and 'sweet' stains and water marks that can be removed by sponging. The reason silks cannot be spotted with water as in the case of woolen goods is the great tendency to ring. A dash of water on silk usually leaves a spot. Water spots on certain silks including taffetas and crepes, can be cheese-clothed dry and made ringless, but not so with

most silks. Mud spots, candy spots, coffee spots, etc., are all, generally speaking, as easy to remove as a plain water spot or streak. Instead of spotting out these individual stains, the whole garment is gone over with water, thereby leaving no chance for a water stain. It is well to be very careful to sponge every portion of the garment and to avoid wrinkles, as the least portion that is untouched will circle as in the case of a water spot on silk.

How to Proceed in Sponging:

For the simplest method of sponging, get a bowl of cold water (distilled water is always preferable), a clean, soft sponge and a clean buck or table on which to do the work. If using a pressing buck, which is very convenient, it should be plain board, glass topped, or covered with white oil cloth. The last mentioned is simple and sufficient. Supposing the garment to be a black taffeta skirt, slide this upon the buck full length, and, starting at the opening, sponge the length of the garment from the waist-band to the hem and always with that one motion. Keep working around the skirt until you have finished it. Do not moisten the sponge too much as it will saturate the fabric more than is necessary. Simply hold enough in the sponge to moisten the goods thoroughly. When on a very dirty garment, more water is necessary and more sponging required.

The proper way to handle this process is to have your garment fairly dry when the sponging is complete. Do not finish it dripping or it will dry unevenly which will sometimes cause the dreaded water streak that we are trying to avoid. Rinse the sponge repeatedly so your garment may not be streaked with the dirt you are removing. This process is very simple and easy but if you have never performed it, we would advise you to try it on some old garment first. A little practice will soon enable one to judge what amount of moisture to use.

Pongee is more difficult to sponge than any other silk and for this reason we will describe the method to use with it. Rub the damp sponge, sufficiently moist now, over it

until the wild silk takes up the moisture evenly. Sponge every seam and the hem from the inside. Go slowly with this process and be very sure every particle of the garment is moistened. Pongee absorbs the water very slowly and if the process is hastened, many streaks and rings will appear. However, if plenty of water is used and plenty of time taken for sponging you will be delighted with the new pongee when dried and pressed. If streaks and rings should appear, it will be necessary to repeat the process. All silks treated by this method should be dry cleaned afterwards to remove the dullness and stiffness that the water sometimes puts in, and to bring out added luster and brightness.

Many silken garments cannot be entirely sponged owing to some trimmings that are not removable. Also many articles do not require a complete sponging, perhaps only the sleeve is dirty or the collar or gore. Whatever the case may be, should only a partial sponging be required, begin and leave off at a seam, being careful not to sponge quite up to it. The capillary attraction will usually draw the dampness up to this seam and the seam itself will neutralize all streaks that naturally would occur when sponging is completed. It is sometimes necessary to cheesecloth from the water line up to the seam. Do not overreach the seam with water or all that portion beyond will have to be sponged.

Dirty Linings:

When one has a plush, broadcloth, or any other kind of a coat or jacket, that has a dirty lining which dry cleaning will not clean, it is advisable to rip out the lining at the bottom and sponge it with water, in the same manner as a silk skirt. A little soap may be added on the hem if it is extra dirty from street wear.

CORSET CLEANING.

Contrary to the belief of the average woman, corsets cannot be dry cleaned successfully. The only process is that of steam cleaning.

Plenty of good soapy water about lukewarm temperature to prevent shrinkage, a good brush, and plenty of elbow grease are the main requisites. Work quickly over the entire garment, rubbing both inside and out. Rinse well and blue just a trifle. Press with a moderate iron when corset is nearly dry. Some cleaners use a drop or two of sulphuric acid in the last rinse to prevent the stays from rusting.

RUG CLEANING.

Rugs and carpets may be 'spotted' or dry cleaned as they lay on the floor if they are not in a too soiled condition. Sweep thoroughly or better still, take them out and beat well. On each grease spot use either gasoline mixed with a little chloroform or pure carbon tetrachloride. Sponge the spot well and rub out dry. Always ventilate the room well when working on rugs indoors.

Should the rugs or carpets be so soiled that ordinary sponging will not improve them, and if only the surface is spotted, they may be sponged clean with soap and water, by following these simple directions.

Shave up one-fourth of a bar of Ivory Soap into a pint of boiling water and boil the mixture for ten minutes or more after it is thoroughly dissolved. Pour into a glass can for convenience and cool. Now after the carpet or rug is thoroughly swept, apply this cool paste on a yard or so at a time, working it in well with a good scrub brush. Brush with, and not against, the nap. After sufficient scrubbing, scrape off the paste with a ruler and wipe the rug clean with a cloth or sponge using a little clear, lukewarm water. Avoid using much water in this rinse.

This treatment will restore to their original beauty the colors on rugs, no matter how delicate.

CHAPTER IV

Stain Removing Formulas and Bleaches

GENERAL REMARKS ABOUT SPOTTING

After dry cleaning and drying the clothes, brush them well if they need it and prepare the spotting table. This



should be in a well lighted and ventilated room, free from direct sunlight and draft and fire. If the ordinary table is too low, use the pressing buck covered with white oil cloth. Many professional spotters have bucks or spotting tables with glass tops but white oil cloth will do nicely. Have handy, a bowl of clear water, a can of carbon tetrachloride, a bottle of chloroform or sulphuric ether, some alcohol and any other chemical, bleach or mixture one may wish, and lastly, plenty of clean rags. Any cloth to match the textile and color of the garments worked on, is best.

Two main requisites in removing stains is to understand the nature of the stain and the kind of fabric to be spotted.

Many spot removers which are entirely satisfactory on vegetable fibers, such as cottons or linens, if used on animal fibers such as woollens or silks, will remove the fabric as well as the spot. Likewise, many spot removers, excellent for removing stains from woollens or silks will not work successfully on cottons and linens. Sometimes the same treatment that will remove some spots immediately, will tend to 'set' others of a different nature more firmly in the fabric. If the nature of the stain is unknown, cold or lukewarm water is always good for the first step if color and fabric will permit. Hot water should never be used on stains containing protein such as blood, milk, egg, or meat juices, as they are 'set' by heat.

With a little experience one can soon distinguish the various spots. If several garments are being spotted use the water first and remove all such stains that will dissolve. Dry well before applying anything else on wet spots. After using water on white wool, rub out the spot well and apply ordinary starch over the damp spot. This will prevent rings. A little chloroform, alcohol, sulphuric ether, or any volatile liquid mixed with the spotting water will aid in ringless spotting. In case of a ring on any ordinary garment, sponge the outside of it with a little wood alcohol and then work on the inside as before. Try to locate the nature and origin of the stain. Examine the textile carefully as the modern fabrics and dyes are not as true as formerly. Do not rub the garments too harshly, especially when working on silks, as sometimes a discoloration is left that is not removable. In using any solution for the first time, remember to dilute it for the test, for it can easily be strengthened. All bleaches, of course, should be used only on white or nearly white garments, and a strong spotting solution should never be used on a dye that is not well set. Have patience in all spotting. Do not rush the job. Some spots dissolve slowly. Many are obstinate, and yield only to patient work. Sometimes with certain grey-colored suits it is best to press clothes with a few obstinate spots still showing. After pressing and drying, the thumb nail can scratch these spots entirely out. A good spotter uses

his thumb nail continuously in testing and removing spots.

A simple and effective method for spotting silks or any garment where the spot must dry quickly to prevent ringing or where the ingredients of the stain must be absorbed as soon as dissolved, such as indelible ink stains or heavy grease, is to use white blotting paper between the spotting buck and the article worked on.

When spotting silks, never use a white cloth for rubbing, but if possible, a sample of the fabric which is being spotted, or at least the same color of cloth. This precaution must be observed if perfect work is to be done as the modern dyes are very sensitive to rubbing and spotting.



At this point we might suggest the advisability and convenience of having a little cabinet for keeping the bottles of chemicals and formulas. The successful spotter must have at his command a dozen or more chemicals, formulas and bleaches and he is wise who will have these in a convenient place. Anyone handy with a hammer and saw can easily build this cabinet which can be made from cheap lumber. The dimensions are simple, 24 inches long, 18 inches high, and 6 inches wide. Place a shelf ten inches from the bottom and divide each compartment into as many pigeon holes as desired. This will hold a dozen bottles or more, plenty of cloths, a sponge or two and, in fact, any-

thing that is necessary for spotting. All bottles should be correctly labeled so anyone can use them with no fear of getting the wrong chemical. This cabinet is especially convenient for it can be carried around from place to place, set in a corner when not in use or on the spotting table when necessary. With it, one can have a place for every chemical and every chemical in its place.

CHEMICALS AND DESCRIPTIONS.

We would suggest to the person who wishes to do a great deal of stain removing to have a number of the more common chemicals and also a few of the standard formulas mentioned in this book always on hand. If one does only occasional spotting and stain removing such as home work would require, buying and mixing the chemicals when needed is recommended.

The majority of people are a little afraid of chemicals with strange names and are prone to pass up any chemical or formula with which they are not perfectly familiar. To familiarize all the readers with these so that no mistakes will be made, the following list of chemicals is described, and directions are given for making a solution if one is required. Many of the chemicals given below are thoroughly described in other chapters so only a brief mention will be made of them here.

Water is the most useful of all solvents and will remove ninety-five percent of all spots after the clothes have been thoroughly dry cleaned. All 'sweet' stains such as sugar, starch, and albumen are easily dissolved by it. A little acetic acid in the spotting water is a great help in dissolving some of the obstinate stains. Many of the spots on woollens must be rubbed well and hard before they yield. In all spotting, where necessary, rinse well and then cheese-cloth the spot until dry. Chiefly is this true of tans, greys, browns, and whites. If this is not done, rings and streaks sometimes appear.

Wood Alcohol is the next solvent of importance. It is used in many different mixtures. It has great preservative

powers and for this quality as well as its cleaning properties, is extensively used in many formulas.

Carbon Tetrachloride is excellent for obstinate spots and paint and is also largely used for removing grease and oils. It is the best all round spotter and is good for nearly all spots and stains. It will not circle when properly applied; neither is it inflammable and for these reasons is coming into general use among the cleaners. It is also an excellent fire-extinguisher and is handy to have around when working with inflammable fluids. A little can of carbon tetrachloride dashed on a gasoline fire will smother it by forming a blanket of gas over the burning liquid thus excluding the oxygen of the air. To dilute gasoline, ether, or chloroform with carbon tetrachloride will render them non-inflammable or nearly so. It is the main ingredient in the popular fire-extinguisher. The cost is still prohibitive but the cleaners hope that in due time it will succeed gasoline as a general cleaner because of its safety.

Ether, Benzole, Benzine and Chloroform are all good solvents being nearly equal in cleansing properties. Chloroform is different from the others in that it is not inflammable. It also is the best paint solvent known and is used separately or in solutions for this purpose.

Glycerine is a fair solvent with but a very small range and is not extensively used.

Turpentine is not recommended for general cleaning on account of the unpleasant odor it leaves in the garments but is largely used for dissolving paint, varnish, and heavy oil spots. It is not explosive even though it is combustible. Suits covered with paint or varnish should be soaked in turpentine for a day or two previous to dry cleaning. The best way to do this is to roll them up in a ball after applying the turpentine.

Concentrated Ammonia is a liquid and is used in various formulas for spotting and cleaning. Diluted with two parts of water to one part concentrated ammonia makes what is

commonly known as aqua ammonia. It acts as a slight bleach on weak colors. Ammonia is used a great deal in cleaning, both for the dry and wet processes, mainly being employed in conjunction with other chemicals.

Dilute Phosphoric Acid is a colorless liquid and is employed chiefly to aid in ink removing. It is harmless when directions are followed for its use.

Hydrochloric Acid is a liquid also and is used very little for cleaning or spotting. Care should be taken when it is used in that it be well rinsed from the garments.

Oleic Acid, Oil Benne, Peppermint Oil, Wintergreen Oil, Balsam Fir, Camphor, Olive Oil, Neats Foot Oil, Fusil Oil, and Acetone are bought in liquid form and employed mainly in formulas.

Sulphuric Acid is a poison and if applied directly to clothing will ruin it. It is largely used for setting the colors in garments that will bleed. A few drops to the gallon of water is the right proportion to use.

Chloride of Lime is purchased in powder form and is dangerous to handle in its raw state. It is employed as a bleach and its use is thoroughly described under the chapter on 'Bleaches.'

Sal Soda, Glauber's Salt, Wyandotte Soda, Sulphur, Borax, Pulverized Magnesia and Alum come in crystal or powder form. They are mild chemicals and soluble in water. Directions for the use of each is given special mention in the various portions of this book.

Hydrogen Peroxide is a liquid and can be bought at all druggists' by the bottle. It is chiefly employed as a bleach.

Acetic Acid is a harmless liquid and used in the spotting water, in formulas, and for setting colors usually in the last water rinse. Ten or fifteen drops to the quart of water is sufficient for spotting purposes and for setting colors.

Glacial Acetic Acid is practically pure but the ordinary commercial acetic acid is best suited for all common work.

Hypsulphite of Soda comes in crystal form and is commonly used for the removal of stains, particularly those of iodine. To make a solution, add one teaspoonful to four ounces of water and let thoroughly dissolve.

Oxalic Acid is purchased in crystal form. A teaspoonful to the quart of water is the correct proportion to use for spotting purposes. It is thoroughly described under the bleach by that name. It is very useful for removing iron stains.

Potassium Permanganate solution is made by dissolving a pinch of the crystals by that name in four ounces of water.

Sulphurous Acid is bought already prepared and comes in liquid form. It is not dangerous as is Sulphuric Acid and is used only in conjunction with Potassium Permanganate as a bleach.

REMOVAL OF STAINS FROM WOOLENS AND SILKS **Alphabetically Arranged.**

Ammonia or Alkali Stains:

Moisten the stains with a little dilute oxalic acid or dilute acetic acid, after which sponge with water.

Berry Stains:

On colors that will permit, try a good mild soap and water. On whites try also the permanganate-sulphurous bleach, a description of which will be found on other pages.

Blood Stains:

On dark woolens, soak for an hour in cold water, dry and then dry clean. Or if they are very obstinate, take a solution of one teaspoonful of common soda and one of salt, in two gallons of water and soak as before. Brush, rinse, and dry.

On white wool or silks, when cold water fails to remove them use the potassium permanganate-sulphurous

bleach. Should the colored silk be such that you can sponge it, try to sponge out the spots. If unsuccessful, apply acetic acid on the wrong side of the silk very carefully. This may be used on very delicate colors.

It is best to remove this stain before dry cleaning as that process tends to "set" the stain.

Beer Stains:

Beer, whisky and wine stains may be removed with water and acetic acid.

Buttermilk Stains:

On woolens, water should remove the stain after it has been dry cleaned. On colored silk, sponge with warm water if the dye will permit and on light silk, sponge with hot water.

Coffee and Chocolate Stains:

If the color or garment will allow and always on whites, wash with warm or hot water and soap. If on a delicate silk, rub the stain well with glycerine; repeat this several times, and rinse with wood alcohol or benzine or better still dry clean again.

Butter Spots:

These are dissolved by the use of gasoline, benzine, chloroform or carbon tetrachloride. Soap and water will remove butter from white wool. On silks use carbon tetrachloride or chloroform. Dry cleaning will remove this stain from all garments.

Dye Stains:

Dissolve a little crystallized oxalic acid in acetic acid of 10 % strength and mix this in four times its volume of alcohol. This will remove some dye stains. Read the paragraph, "How To Remove Colors That Have Run On Silks or Woolens."

Egg Spots:

Plain water will remove these from woolens and usually chloroform will dissolve them from silks. If any por-

tion is left, moisten it with a good solution of soap and water, rubbing it carefully with the same color silk as the garment worked on. Dry it quickly with cheesecloth or better still a blotter underneath and cheesecloth on top.

Fly Paper Stains—Sticky or Hardened:

If dry cleaning does not affect them sponge with warm water or if need be, steam clean the whole garment. Sometimes carbon tetrachloride or turpentine will remove the spots. A good paint remover will generally do the work if nothing else will.

Fruit Stains:

On wool, fruit stains are generally dissolved by warm water and soap. On white wool if not removable by this method try bleaching with potassium permanganate and sulphurous. If on silks that are fast color, dry clean first, then sponge in cold water to which has been added a little soap, using acetic acid on the stains. This should remove these stains.

Grass Stains:

Work on all grass stains before dry cleaning as the latter method has a tendency to set such spots. If the spot is stubborn working both before and after dry cleaning is recommended. Chloroform or carbon tetrachloride usually dissolve all such stains.

On wool or flannel, steam cleaning will sometimes remove them.

Any good paint remover has a splendid effect. If on silk, chloroform is preferred.

Butter rubbed on the spot and the garment placed in the sunlight to dry is recommended. In this case rinse with gasoline or dry clean.

Grease Stains:

Dry cleaning should remove all such spots especially if good benzine soap is applied directly on the spots before washing. Should there be a stain left it is probably the iron

from the bearings or wheels of machinery that is contained in the oil. Rub lard well into such spots until they are softened. This will have a tendency to loosen the spot so a second dry cleaning will thoroughly dissolve it. If noticed on whites, after dry cleaning treat it with any of the bleaches mentioned on other pages.

Many times the spot may be sponged with gasoline, benzine, chloroform, or carbon tetrachloride without a dry cleaning if the stain is fresh and on dark goods.

Grape Juice:

This is considered quite a difficult stain to remove. If warm water, ammonia and soap does not remove it on whites, try the oxalic bleach immediately. If not successful try the permanganate-sulphurous bleach. On the garments where the colors are fast try only the ammonia soap and water solution.

Glycerine Spots:

Dry clean thoroughly or these may be removed by spotting with benzine, naphtha, carbon tetrachloride, ether, chloroform, or anything, even good suds and soft water that will dissolve oils and grease.

Ice Cream Stains:

On woollens use clear water, or if unsuccessful, warm water and soap. On white silk, use warm water applying only a little soap on the spot. Sponge the whole garment. Should it be a chocolate ice cream stain on white or colored silk, rub on a little of this solution. (Equal parts of chloroform and good benzine soap. Enough wood alcohol to settle). Now dry clean all over and repeat the process. Sometimes you are required to sponge the garment and then dry clean. This is a sure cure for chocolate ice cream stain.

Indelible Pencil Stains:

These are usually found on vests. Use ammonia and wood alcohol, putting each on separately and repeatedly. Dry clean and repeat the process if not successful the first

time. If on a very difficult garment use soap in the ammonia.

Indelible Ink Stains:

The same as Indelible pencil marks using plenty of soap with the ammonia. Try scouring the whole garment in a very hot solution of soap and ammonia as a last resort.

Ink Stains:

These stains are difficult and sometimes impossible to eradicate. Particularly is this true on the silken goods that



have weak colors and fabrics. On woolen goods where the harsher treatment is not detrimental to the cloth, many of the stains may be removed easily, especially if they are fresh.

Many inks are so indistinguishable to the average person that a special treatment for each would not be appreciated. Suffice it to say that in removing most stains of this nature the following general method may be employed: Soak the spot in hot water for a few minutes, then wring out the water and soak in strong ammonia for an instant and afterwards rub with a cloth well saturated with dilute

phosphoric acid. Try this only on good dyed garments or whites.

If this does not remove the stain, try spotting with a mixture of equal parts of alcohol and acetic acid, or a mixture of ammonia and alcohol followed by a rinsing in acetic acid and water. Or simply try hot alcohol. Sometimes nothing more than a thorough scrubbing with good hot soap and water is required. This is quite successful with fresh stains. Weak hydrochloric or oxalic or acetic acids are all of service in removing these stains.

No set rule can be given all inks, as the inks and ages of the stains vary so greatly, but two of the commoner inks can be removed quite easily by the following methods.

Iron Inks. These stains on light garments may be removed without difficulty. The first thing to do is to make sure it is an iron ink. This can be tested out by daubing it with a solution of oxalic acid. If the stain contains iron it will turn a brown color. To remove this ink spot, treat it with hot hydrogen peroxide continually until it gradually turns yellow and finally bleaches out altogether. Rinse with several spongings of hot water to remove all trace of the peroxide.

Aniline Ink:

To remove this, use a hot solution of oxalic or a solution of hydrosulphite may also be used with success. Very obstinate stains may be removed by first, applying a solution of hydrosulphite and then oxalic acid. This makes a powerful solution and reducing agent.

Ink on the hands can be removed by dampening and rubbing with the tips of matches and rinsing with water.

On real fresh stains on rugs or heavy garments salt heaped over the spots will remove them by absorbing the ink. Remove the salt as fast as it turns color and place on fresh until the ink is entirely gone. Salt will not affect these spots unless placed on them immediately after being made.

On white goods as a final remedy, try bleaching by the permanganate-sulphurous method.

Iodine Stains:

The best formula for removing these stains is the following: Mix up a solution of hyposulphite of soda and water to which add a little ammonia. Apply this to the stain then rinse and hang in the sunlight, to dry. Repeat the process until the stain disappears.

Linseed Oil:

This is the hardest oil stain to dissolve and many times it cannot be removed. The only thing to use is common lard mixed with turpentine. Rub this into the spot well, soak it for an hour and dry clean the whole garment. This will remove it if it is removable.

Printers' Ink:

Soak the spot well in turpentine before dry cleaning. Repeat the process if necessary.

Mold and Mildew:

These stains are sometimes impossible to be removed if too old. Try bleaching with hydrogen peroxide. If possible wash in warm water and soap and hang in a good sunlight to finish bleaching.

Medicine Stains:

These also are impossible to be removed at times. Usually medicine is either composed of vegetable or mineral matters. If of the former nature, proceed as with fruit stains on a previous page and if of a mineral composition, treat with hydrochloric or oxalic acid and of course rinse afterwards.

Milk Stains:

Dry clean first to remove the grease and oils. For milk stains on wool, either white or colored, or on silks that are fast colors and will withstand water, sponge with soap and ammonia water and then thoroughly rinse.

Mud Stains:

There is but one successful method to employ in removing mud and that is 'the water process.' Dry cleaning will not affect it, to any great extent. Should the garments be colored, such as blue serge, black or brown worsted, a little water spotting will be sufficient if the stains are not heavy, but should the garments be white or colored silk it is a different matter. Scrape off all the loose mud with any blunt instrument and then follow directions, under 'Wet Cleaning' or 'Sponging' and the mud will disappear like magic.

Mud and dirt on the skirt hems should be first treated with a good benzine soap before being Dry Cleaned. This will help remove many stains coming from mud and street soil.

Paint Removing:

There are many good methods for removing these spots. Probably the simplest and strongest is that of using plain chloroform. This may be used on any garment, care being taken to deal gently with silks. On obstinate spots on woollens rub vigorously.

The best all round paint remover, the author has ever found, and, by the way, it is worth ten dollars to anyone, is this simple formula: Mix equal parts of a mild benzine soap (do not use soap that has in it any gasoline as this will weaken it) and chloroform. Settle the mixture with wood alcohol. Ether, acetone, and carbon tetrachloride are good substitutes for chloroform and may be used, but chloroform is always the best. Use this on paint spots previous to dry cleaning. On delicate shades of silk use it immediately before dry cleaning and rather sparingly or the color may be affected. Repeat this treatment, if necessary, especially when the paint spots are old and hard.

Carbon tetrachloride is excellent to use when one is in a hurry and the paint spot is not too serious. Use it on woollens with plenty of elbow grease and you will be rewarded

for your trouble with clothes that come out paintless, greaseless, and odorless.

Turpentine and ammonia mixed make a good paint formula also.

On gentlemen's clothing where the paint is thick, saturate the whole garment with turpentine, tie up in a ball and let stand for two or three hours, after which dry clean. The paint spots will be gone or can easily be scratched off with the thumb nail or any blunt instrument.

Four parts of wood alcohol, three parts of benzine soap and one part ammonia is recommended. Apply this mixture and dry clean over.

Vaseline thinned with fusel oil and rubbed well into the paint spot and the whole garment dry cleaned will remove a very contrary spot of this nature.

Perfume Stains:

On silks, if the color will permit, try hot alcohol or peroxide of hydrogen bleach. If on white wool, try the oxalic or the permanganate sulphurous bleach. On many silks the color will not permit of the removal of this stain.

Perspiration Stains:

On pongees or white silks and satins, these stains sometimes are removable by steam cleaning or sponging with soap and water. Where the colors will not permit of sponging with soap employ the acetic acid solution.

One of the latest methods is this: Dip the stain in a solution of Glauber's salts and water and let the garment stand till dry. Repeat this treatment if necessary. On colored goods, treat the spot with dilute ammonia previous to dipping in this solution.

Rain Spots:

Treat these as water spots. A steaming will sometimes remove them.

Rust Stains:

On white wool spot with hot oxalic and follow this up with dilute hydrochloric.

Citric acid and aqua ammonia may be used also on this class of goods.

Rosin, Pine, Pitch and Tar Stains:

Rub in plenty of good benzine soap and dry clean and then sponge. If this does not dissolve them, apply alcohol or turpentine. Use the thumb nail in loosening the spot before using the chemicals. These spots are not at all difficult but only a little persistent.

On very contrary stains use this mixture before dry cleaning: Equal parts of chloroform and a good gasoline soap with enough wood alcohol to settle.

Soot Stains:

Dry cleaning or simply sponging with gasoline or benzine will remove these stains.

On rugs or carpets sprinkle salt liberally over the soot spot and sweep thoroughly and as a rule this will remove most of the soot.

Smoke Stains:

Dry clean and then steam clean the garments. Press using plenty of water on the press cloth to drive out the smoke smell with the steam.

Scorch:

Spot with cold water and hang in the sunlight. If on whites, the process is hastened sometimes by applying hydrogen peroxide and leaving in the sunlight. The application of this bleach as soon as the garment is dry and continued repetition will remove some of the worst scorches.

Sulphurous acid sponged over the burn on tans and greys and the garments placed in the sunlight is another good way. Repeat this many times and dry between operations. This method may require some time before results are obtained. If on a grey wool, rub with an old dollar.

Shoe Polish, Black or Brown:

Apply benzine soap on the stain and dry clean well. Steam clean the garments and if possible bleach by the permanganate-sulphurous method and sponge with cold water.

Saliva Stains:

Sponge or steam clean if necessary. A good ammonia soap solution will give results.

Tobacco Stains:

Good hot soap and water to which is added a little ammonia will remove these. If on white wool or silk use the permanganate-sulphurous bleach if the above fails.

Tea Stains:

Soap and water will remove the majority of these stains. Should this fail, try alcohol or a beach of oxalic acid if the fabric will permit.

Varnish Stains:

Use the various paint removers.

Water Spots:

Water spots are removed with water only. This is very annoying on silks. Where the garment is pretty well spotted, sponge the whole of it. On colored silks liable to bleed, use acetic acid to prevent this bleeding. On grey or tan wool, dry the sponged portion well to prevent rings. Read the chapters on Steam Cleaning and Sponging before attempting to spot out any water marks from silk.

Wax or Gum Stains:

Apply gasoline and scrape with any blunt instrument. Ordinary dry cleaning will remove any of these stains.

**SIMPLE REMEDIES FOR THE REMOVAL OF SPOTS
AND STAINS FROM VEGETABLE FIBERS,
SUCH AS COTTONS AND LINENS**

Coffee, Fruit, Wine, Tea, and Chocolate Stains:

Spread the stained portion of the fabric over a bowl and pour boiling water from a height of two or three feet so the water strikes the stain with considerable force. Coffee stains will usually come out without difficulty. The others may be a little obstinate and if so proceed as follows:

Tea and Chocolate Stains:

Sprinkle the stains with borax and soak in cold water for fifteen minutes. Now dip into boiling water for an instant and then jerk out. Repeat this until the stain entirely disappears. If the tea stains are obstinate, soak in glycerine and then wash in soap and water.

Wine and Fruit Stains:

Soak a few minutes in a solution of one part Javelle water and one part boiling water. Rinse in boiling water to which has been added a dash of ammonia. If necessary, repeat.

Cream and Milk Stains:

Wash out in cold water first. Scrub well with soap and water. Rinse.

Grease Spots of All Kinds:

If on heavy clothing that cannot be washed by the soap and water method, remove by rubbing well with carbolic acid, alcohol, gasoline, benzine or ether. Grease will dissolve on heavy vegetable fibers nearly as easily as on animal fibers. Rub out well with clean cloths to prevent rings. Grease on washable goods is removable by a thorough washing with any good soap and water. If these spots are obstinate, they may be softened by applying lard or turpentine before washing the articles.

Chloroform is usually the spotter best fitted for delicate fabrics. Sometimes instead of using water alone

where the garment might ring, mix it part for part, with chloroform or ether.

Grass Stains:

Try washing out with soap and water. If the garment has no delicate color to fade, a little ammonia and water may remove it. Or it may yield to a good rubbing with alcohol. A paste made of common cooking soda and soap is good for delicate colors. This may be spread on and allowed to stand for two or three hours. Many times chloroform alone will eradicate the stain, or merely lard rubbed on the spot and the whole garment washed in soap and water.

Wax Candle Drips:

Scrape with a knife, then place the spotted portion of the garment on a blotter and press on the wrong side with a warm iron. The heat of the iron causes the wax to melt and the blotter paper absorbs it. Any stain left should be removed by application of wood alcohol.

Paint and Varnish Stains:

Both of these stains yield to the same sort of treatment and both are somewhat difficult to be removed as a rule. Alcohol or turpentine applied to the spot and allowed to soak for several minutes usually softens it. It then can be removed with a little coaxing with chloroform or just plain rubbing. Chloroform should be used alone on any delicate colors that may fade. Do not rush a paint spot but give it plenty of time to be dissolved.

Old paint stains can sometimes be loosened by saturating with olive oil, then using chloroform.

Should the paint be fresh, a little gasoline sponged on with a cloth will remove it immediately.

Blood Stains:

Soak or wash with cold water then when stains turn brown use warm water and soap. Sometimes a paste of starch and water applied to the spot and renewed several times will remove it.

Scorch:

Wet with cold water and hang in the sunlight. Repeat many times and finish by washing.

Mildew:

As in the case of scorch, sunlight eventually removes mildew. To aid it, wet the stains with a paste of powdered chalk or lemon juice and salt, or sour milk alone. Another method--mix a paste of equal portions of soft soap and salt together with equal portions of starch and lemon juice; smear on stain and hang in sunlight. If necessary repeat and finish by washing in soap and water.

Ink:

This stain worries the best of cleaners. No reliable remedy for the removal of all ink spots can be given. Should one be fortunate enough in catching the spot fresh, soak it up with milk and squeeze out and repeat until no more ink can be removed. A soap and water bath, then bleaching in the sunlight will usually complete the job.

Old stains are helped by the simple application of lemon juice and salt. Hang in the sunlight to dry. One part boiling water and one part Javelle water is also good. Use this on white goods only and of course rinse well.

Another method for whites is oxalic acid solution. Apply this to the stained portion and let stand a few minutes. Repeat until the stain disappears. Rinse in water to which has been added a dash of ammonia.

FORMULAS FOR SPOTTING COMPOUNDS AND BLEACHES.

Many salesmen travel from city to city selling formulas, usually spotting formulas, to the various cleaners. Many of these are no good but sometimes a few will be discovered that are valuable. A few tried and true formulas, including several of the ones usually sold, are given below.

Mysterious Mystery Formula:

This is sold for ten dollars and is a rapid seller. It is claimed to remove any spot from woollens, cottons, and

silks. The writer has found it valuable for woollens, cottons and some silks. In its condensed form it is so penetrating that when spread over a printed page or picture, it will duplicate same by stamping with a blank paper or blotter.

Take a pint of warm water in a quart bottle and dissolve in it three tablespoonsful of chipped castile soap. Now put in—

Twelve ounces of turpentine,
Two ounces of 26% ammonia,
One ounce of benzine.
One ounce spirits of camphor,
One and one half ounces of sulphuric ether.
One fourth ounce of balsam fir,
One fourth ounce of wintergreen oil.
One half ounce of peppermint oil.

Shake well after putting in each chemical. Pour one ounce of this mixture into a bottle and gradually add sixteen ounces of gasoline, agitating constantly as the gasoline is being poured in. Better still, pour in a little gasoline, then shake well and fill in this manner. When thoroughly amalgamated, the emulsion resembles thin cream and is then ready for use.

A Good Spotter for Grease And Sweet Stains:

Dissolve one part of fine soap such as castile to twelve parts of aqua ammonia. Shake in the bottle well to aid in dissolving. Now gradually add one part of gasoline, shaking thoroughly for several minutes. One part of this mixture to ten parts of gasoline makes a splendid spotter for grease and sweet stains.

A Good Soap for Spotting:

To make a good soap for wet cleaning or spotting which has a remarkable strength, dissolve any good soap such as Castile in aqua ammonia. Shave the soap fine to aid in dissolving. A tablespoonful to the quart is of about the right strength. A quick way to make this is to place the

powdered soap in a quart bottle, pour half full of hot water, shake until half dissolved and then add a teaspoonful of concentrated ammonia. Fill up with water. If spotting delicate garments, dilute with water if necessary.

Spotting Formula For Silks, Woolens, and Cottons:

Dissolve one half bar of castile or Ivory soap chipped fine in three quarts of warm rain water. To this, add two ounces each of sulphuric ether, chloroform,^o and ammonia. Shake well and keep corked in a gallon bottle. This is a mighty solvent for dirt and greases of all kinds. Rinse after using.

Silk Spotting Formula:

Take a two quart bottle and pour in a half ounce each of chloroform, aqua ammonia, and sulphuric ether and one ounce of bay rum. Let this mixture stand for a few hours after which add one half ounce of powdered borax and fill up the bottle with gasoline or benzine. Shake this well and use it for grease, oils, etc., on silks.

Permanganate of Potash and Sulphurous Acid Bleach:

Use this Bleach for Wool or Silks:

This is a bleach that is very simple, inexpensive and without equal for small spots on white wool and silk. It generally is used after the garment has been dry cleaned but there is no reason for this except that the obstinate spots are more prominent then. It can be used before dry cleaning if necessary or during sponging or steam cleaning.

Do not be afraid of this bleach for it is perfectly harmless. Its difficult name does not interfere with its bleaching power. All of the best cleaners and spotters use it.

How to Prepare and Use:

Place a pinch of potassium permanganate crystals in a four ounce bottle and fill up with water. When the crystals are dissolved the liquid is a dark red. Now sponge the troublesome spot with water. Apply a drop of this solution with a toothpick or any blunt stick. It will turn a reddish-brown. Remove this brown stain with a drop or two

of sulphurous acid, which any druggist will furnish already prepared. Sponge the spot with water again, and repeat the process until it is entirely bleached. Rinse well. Rub out the water spot with a dry cheese cloth to prevent rings. If either of the mixtures is too strong, dilute with water.

Sometimes a whole garment will need a good bleaching. In this case, the article to be bleached will have to be submerged first in the permanganate and then in the sulphurous. To prepare for this, dissolve half a teaspoonful of the permanganate crystals in eight or ten gallons of water. Place the garment in this until it turns a reddish-brown. Then transfer it to the sulphurous bath, which is made up of one pound of sulphurous acid to eight or ten gallons of water. Finish by rinsing well in water.

A Good Bleach for Woolen and Silken Garments:

This is a splendid bleach should one wish to use such a long method.

For small garments such as waists, use the formula as it stands. For heavier garments double or triple the amount as necessary. Mix two quarts of hydrogen peroxide to one quart of concentrated ammonia and let it stand about half an hour. Prepare a boiling oxalic bath by using a tablespoonful of oxalic acid crystals in three quarts of boiling water.

Now dip the waist in the peroxide bleach and let remain for a few minutes, then rinse well in the hot oxalic bath.

To finish, bleach with the permanganate and sulphurous bleach found on other pages.

Oxalic Acid Bleach:

Place an ounce of oxalic acid crystals in a four ounce bottle filled with water. Shake well until dissolved.

In using this bleach, simply sponge the spot with water and apply a drop of oxalic acid. Rinse with water and repeat until the spot is gone. Use this bleach on white palm beach, white wool and silk. Many times this method is the

only one that will remove an obstinate spot. This bleach is especially successful for rust and ink stains.

Oxalic Acetic Bleach:

Dissolve as much oxalic acid as cold ten percent acetic acid will absorb. This is good for iron strains, etc., on whites. It may also be used in the place of the sulphurous in removing the reddish-brown stain that potassium permanganate makes—see permanganate sulphurous bleach. Use this bleach only on woolens and silks.

Hyposulphite Bleach:

Hydrosulphite, or as it is sometimes called, hyposulphite, has few rivals in stain removing from white garments. It must not be used on weighted silks however. The most difficult stains of fruits, paints and dye stains, etc., will easily bleach under its use. No bad effects will be experienced as with some of the common stain removers.

To use hyposulphite, simply apply it on the spot and let soak an instant, then sponge with acetic acid and dry by ironing. Repeat this process several times and the spot will be gone leaving no ring. Sometimes a yellow stain is left which shows that the spot contained iron. Bleach this by the regular oxalic or permanganate-sulphurous bleach.

Cotton and Linen Bleach:

This is a bleach that all old cleaners are experienced with and is about the best bleach for cottons and linens. It is called Javelle Water, or Eau De Javelle.

How to Prepare and Use:

Dissolve a pound of chloride of lime in one gallon of water in one vessel and one pound of sal soda to one gallon of water in another. Always use cold water as boiling water will weaken the bleach. When well dissolved, mix the two together in a stone jar and let settle for a day at the least. Then pour off and strain the top clear liquid very carefully leaving all the dregs as they are dangerous to the fabric. Throw away the balance as waste and use only the clear liquid. Keep it in a bottle well corked and

it will retain its strength indefinitely. Unless one is experienced, it will be a little difficult to determine what strength to use, but a very safe proportion is one third of a tea cup to a boiler of water. Heat this to the boiling point and place in and leave the garment till well bleached which will depend somewhat on the weight and fabric of the garment. The bleach can be used cold, but requires more time.

Two rinses will be necessary to remove the chloride and its odor. If any chloride is left in, it will rot the goods. In the first rinse use one ounce of sulphuric acid to every five or six gallons of scalding water and rinse well. The second rinse may be clear cold water only. Rinse thoroughly.

This method will give a snowy white appearance to the clothes even if not sun bleached and no bad results will follow if these directions are adhered to. All laundries use this cotton bleach with success.

DRY CLEANING SOAP

Ordinary laundry soap can not be used for dry cleaning purposes. It will not dissolve in gasoline and even if it should, would not add strength or cleansing power. It was many years before the cleaners perfected a benzine soap that was reliable and easy to mix in with the gasoline but now many manufacturing companies are producing and selling this product cheaper than the ordinary cleaner can make it. The old time cleaners always made their own soap but the younger generation prefers to buy all that it uses.

The individual cleaner should never attempt to make his own dry cleaning soap any more than he would attempt to make his own laundry soap and for the same reasons.

The best all round soap for home cleaners undoubtedly is Putnam Cleaner. This is excellent for silks of all kinds, white suits, dresses, kid gloves, in fact anything that requires soap. It comes in liquid form and will dissolve immediately in cold gasoline, which most soaps fail to do, and is thus ready for instant use. All druggists handle it.

Buckeye dry cleaning soap is excellent for the dry cleaning plant when soap is purchased in bulk. It is being used by the largest cleaners in the United States and will invariably become the one soap for the cleaning trade.

Soap That May Be Used For Either Dry or Wet Cleaning:

Take equal parts of oil benne (which is another name for oil of almonds) and oleic acid. Now mix in concentrated ammonia very slowly until the mixture gets to the consistency of syrup.

To use this for wet cleaning dilute it with water. To use it for dry cleaning dilute it with gasoline.

This soap is used a great deal for cleaning raincoats or gloves as it has a penetrating power and is soluble in either water or gasoline.

CHAPTER V

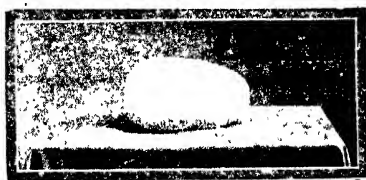
Finishing of Garments

PRESSING SUITS BY HAND



The articles used for hand pressing suits are the pressing buck, the sleeve board, the tailor's cushion, small seam board, the laundry skirt board, the pressing cloth of waxed muslin or linen, bowl of water, a paddle, a sponge and a heavy goose. If the last named article cannot be obtained, use the common flat iron. Employ the heaviest iron obtainable for a good crease requires pressure. The right temperature will depend somewhat on the nature of the garment to be pressed and partly on the amount of water used on the press cloth. The idea is to produce steam and drive it through the cloth and at the same time apply pressure. To perform this operation successfully, first spread out the portion of the garment to be pressed carefully on the press

board and lay the pressing cloth over this. Then apply a sufficient amount of water with a sponge so when the heated iron is brought down slowly and left on just the right length of time, it will create the required amount of steam to drive it through the garment, setting, and drying it in one operation. The paddle can be employed here to help smooth the obstinate fabrics. Never slide the heated iron over the pressing cloth with pressure for this will cause gloss marks. You need not lift the iron off the goods, however, but simply relieve the pressure by taking off your weight. A good workman will not press boardcloths and serges alike. A broadcloth must be more nearly steamed than pressed and a serge pressed hard, but not hard enough to be shined.



(The ordinary Tailor's Cushion)

The old press cloth that is used on dark clothes should not be used on whites, but in its stead, substitute a clean one. Judgment and experience will teach one the little tricks in pressing that cannot be explained. The irregular heat of the iron is a source of trouble in many cases and this must be watched or a scorch may result. The gas heated iron is the worst. The electric iron gives little trouble if not overheated and is much superior to the old fashioned goose or flatiron that is heated on stoves or gas plates. The ease and speed, even heat and cleanliness are its big points. Time saving is literally a step closer to efficiency and with the modern electric iron there is no time spent in cleaning the iron or walking to and fro for hot irons. If you do much pressing, purchase an electric iron, and if possible

an automatic electric, one that turns off the heat or current itself when the iron reaches a high temperature.



(The Seam Board)

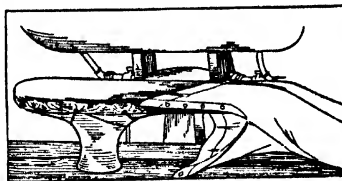
Garments pressed by hand are placed on the pressing buck practically the same as on the machine buck, and the goods are handled in about the same manner.

Inspect all finished work to remove any necessary wrinkles and creases.

PRESSING OF GENTLEMEN'S GARMENTS

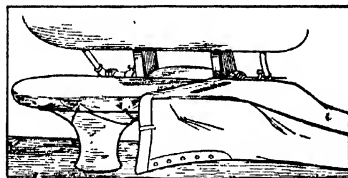
Trousers Pressing:

The most convenient way to handle the trousers is to

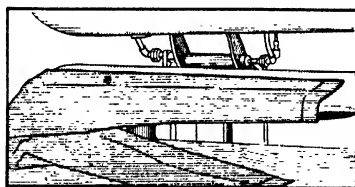


place them on the buck with the fly buttons uppermost and

work completely around the waist. Use the larger end of



the buck. Be careful to turn back the pockets and do not press hard enough to show the curtain and pocket wrinkles.



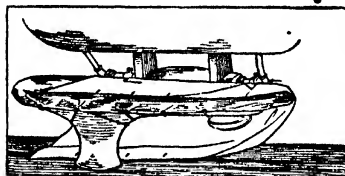
Now press the legs, by spreading the left one full length on a padded table with the fly to the buck, pressing first the front seam and then the back seam. Turn the pants leg over and finish in a similar manner the opposite side of the leg. Now spread the other leg after the same fashion and press. If there is any knee 'spring' in the trousers legs, bring the iron down carefully, steaming slightly, and pull the back of the leg toward you opposite the knee, and then straighten out the leg and press. If the 'spring' is very obstinate, press out the entire crease on the knee, really pressing the knee flat, then put in the crease as before. This is sure cure for 'spring.' See to it that the creases end at the same distance from the top, both in the front and back.

In pressing blues and blacks, and particularly along the seams, use plenty of moisture on the cloth so there will be enough steam to prevent shine. Use a moderate iron.

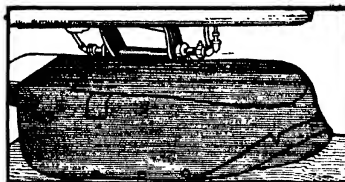
When goods require a hard pressing, bear your whole weight on the iron if necessary and use the paddle on such fabrics with considerable force.

Coat Pressing:

Coat pressing is regarded as more difficult work than trousers pressing on account of the curves of the body and the shoulders and the body lining; however, with the proper equipment and a little practice, it can be made just as simple and easy.

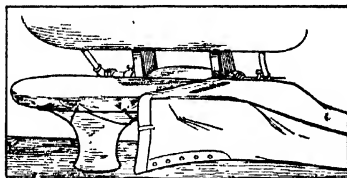


Place the coat on the buck with the shoulders to the smaller end and press the inside facings first and should the coat be a roll lapel, press this from the inside first, ALWAYS. Then on the outside, beginning with the button side and working toward the back and on the outside, press entirely around the coat to the button holes. Press well up into the shoulderheads being careful not to crease any part under the arm pits. Care should also be taken not to wrinkle while damp. After finishing the body of the coat, press the lapels if they are to be flat and also the collar. Next, the

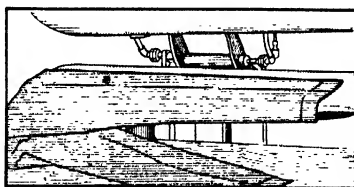


sleeves are placed on the buck one at a time and pressed as the trousers legs. Attention must be given in getting these

work completely around the waist. Use the larger end of



the buck. Be careful to turn back the pockets and do not press hard enough to show the curtain and pocket wrinkles.



Now press the legs, by spreading the left one full length on a padded table with the fly to the buck, pressing first the front seam and then the back seam. Turn the pants leg over and finish in a similar manner the opposite side of the leg. Now spread the other leg after the same fashion and press. If there is any knee 'spring' in the trousers legs, bring the iron down carefully, steaming slightly, and pull the back of the leg toward you opposite the knee, and then straighten out the leg and press. If the 'spring' is very obstinate, press out the entire crease on the knee, really pressing the knee flat, then put in the crease as before. This is sure cure for 'spring.' See to it that the creases end at the same distance from the top, both in the front and back.

In pressing blues and blacks, and particularly along the seams, use plenty of moisture on the cloth so there will be enough steam to prevent shine. Use a moderate iron.

PRESSING OF LADIES' GARMENTS**Skirt Pressing:**

When the skirt is plain or whenever possible, work on the inside. Place the top of the skirt over the small end of the buck and press around the waist band carefully and then slip the entire skirt on the buck and press. Badly wrinkled pleats should be pinned to the pressing buck, or, if necessary, baste them in before pressing. In finishing, cold-starch the band and press from the inside. The laundry pressing board may be used for skirt pressing also.

Jacket Pressing:

Press the same as gentlemen's coats. There are more curves to these garments so a little patience is sometimes needed in the shaping of them. The linings should be pressed also, in fact many jackets may be pressed entirely from the inside. Sponge these linings slightly before pressing, if too dry. Do not crease the sleeves.

SILK PRESSING

Most silks may be pressed on the wrong side successfully, some of them even on the right side. Great care must be taken to avoid shining. Do not use great heat. If pressing must be done on the right side as with certain waists with linings, or pleated skirts, use white tissue paper, sliding the iron over this as in the case of the pressing cloth. With sponged or wet cleaned silks where the wrinkles are difficult to remove, a very light sponging just prior to pressing is beneficial. Care must be taken in this, as rings may appear if there is too much moisture. Blue or black taffeta or any dark wash silks, are the best on which to practise this. Do not sponge at one time more than what one stroke of the iron will dry. Obstinate pleats must either be pinned to the pressing-board or basted.

PRESSING LACES AND EMBROIDERY

These articles should be pressed on the wrong side on a thick pad or clean blanket. This will leave the heavy pattern with its natural appearance. Use only moderate heat.

HOW TO PRESS VELVET, PLUSH, VELOURS, ETC.

It is practically impossible to press velvet and plush successfully by the old method of steaming. The best instrument to use for this work is a velvet press-board. This is an asbestos cloth which has a great number of small curved pins that stick up about a quarter of an inch in height.

The material is placed nap downward, on the wires of this presser, the surface smoothed and then an ordinary damp press cloth placed over the back of the material and pressed with a hot iron, the same as any ordinary pressing.

With this press-board one can press and instantly remove gloss from velvet, plush, velour, broadcloth, silk facings, serge, chinchilla and like fabrics. It is especially good for removing finger marks, wrinkles, and creases from velvet, and velour garments and also for pressing seams on chiffon velvet, collars, cuffs, belts, double facings, and millinery folds in velvet. Double-faced materials may be pressed with equal success by this process with the aid of a soft top dresser.



The iron holding device shown in the above illustration may be used for steaming velvets and plushes. Place wet rags on the top of the iron and hold the fabrics in the steam that is created.

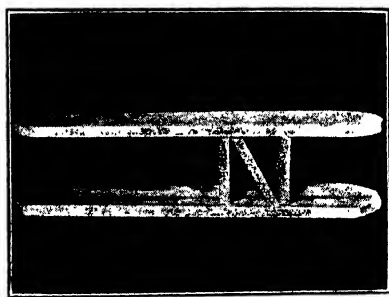
THE PRESSING BUCK AND THE SLEEVE BUCK

The pressing buck and the sleeve buck may sometimes be purchased from the hardware stores or dry cleaning

supply houses. However, since it is often difficult to buy just what you want at these places and also cheaper to build them at home, a description of the constructing of these articles will be given. Any one handy with tools can make them. It is convenient but not always necessary to have one small and one large sleeve board, also one small and one large pressing buck. This is for the convenience of handling all sizes and shapes of clothing, from the dainty waists to the heavy overcoats. The dimensions of one of each will follow. If other sizes are desired, the dimensions may be changed accordingly. •

How to Make a Pressing Buck—Medium Size:

One and one-quarter inch pine boards are best suited for this buck, although extra heavy inch boards may be used.

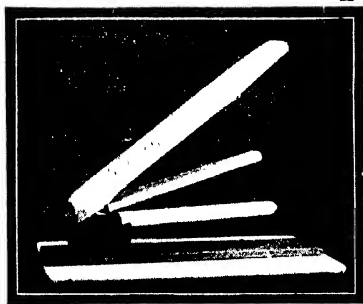


Study the accompanying sketch carefully. The length is 36 inches, narrow end width 4 or 5 inches, middle about 7 inches, and the large end 9 inches. The bottom and top boards should be made exactly alike. Round off the corners of the ends smoothly and symmetrically. Join them together 8 inches from the large ends with two rectangular pieces of wood, six inches high and the width of the buck or with a block of wood six inches square. The long end should be 19 or 20 inches in length. Use screws instead

of nails throughout this work as these tools usually are given rough usage.

How to Make a Sleeve Buck:

Small sleeve bucks are made from one inch soft pine and are similar to the pressing buck described above except that they are narrower and shorter. The usual length is 30 to 34 inches. Make the smaller end 3 inches wide and the larger end 5 inches wide. Round off the corners of each end smoothly and symmetrically. The foundation and press board may be joined together in the same manner as the other buck but it is better to use a short galvanized pipe three-quarters of an inch or an inch in diameter and about 4 inches long with a common floor flange attached to either end and these screwed to the top and bottom boards. This gives the greatest possible strength with the largest amount of pressing surface available without wrinkling the garment to be pressed as in the case of wider braces. Make the longer end at least 18 inches in length and the shorter end not less than 8 inches.



The above cut shows a very serviceable sleeve board, with three arms. It is a most practical sleeve board to purchase.

How to Pad the Pressing Buck:

An old blanket folded two or three times makes a suitable pad. Carefully smooth out all wrinkles after placing on the pressing buck. A light canvas or an old sheet will suffice for the top cover. This must be tacked securely and tightly all over the top of the buck with the tacks driven on the side or underneath the top board so the garments to be pressed cannot be torn by them. Use common carpet tacks.

HOW TO MAKE SIMPLE REPAIRS ON GARMENTS

Anyone who has a slight knowledge of sewing and who has the usual household necessities for this work can make the simple repairs that are often sent to the tailor. Only an expert tailor can repair by hand successfully but hand repairing may be offset by employing the sewing machine for the finer work.

First, let us consider the straight tear. This may be in the leg of trousers, on a coat, shirt, skirt or dress. Usually the housewife overcasts this on the wrong side and calls it finished. But it is untidy. A neater job can be done. Sew it up on the machine on the wrong side as carefully and smoothly as possible and do not turn the stitching off abruptly but very gradually. Now, trim off the edges on the wrong side, moisten a trifle and press with a moderately heated iron until it is smooth. On garments that have little or no strain, this will be sufficient. However, if there is strain on them, this will not be strong enough. To strengthen this tear, proceed as follows:

First, if the garment will permit, stick a patch on the wrong side with rubber tissue. If color or fabric will not permit, baste on the patch. Now, with the sewing machine and working on the right side, stitch on either side of the rip about one eighth of an inch from it. This will leave two rows of stitching about one-fourth of an inch apart, the length of the tear and parallel to it and to each other, and will be extra strong because it will be sewed through the

cloth, through the pressed back edges and through the patch itself. This will make a neat and permanent repair.

In some clothes this repair cannot be seen, especially with striped garments if the seam is sewed with the stripe. Use thread to match the cloth. Many times the stitching will be unnecessary; the sticking with rubber tissue is all that will be required. Sometimes this straight tear is very ragged or broken. In this case trim off the broken and frayed edges and lengthen the tear so the stitching will not end in a pocket. A good pressing must be done also to make the tear lay straight. When very much goods is damaged so as to make the garment tight as in the case of a pants leg, open up the seams and in this way obtain extra room.

The **oil-shaped tear**, if not too difficult, can be repaired in a similar manner. To turn the stitching squarely at right angles when sewing it on the wrong side, requires skill; if this cannot be mastered, repair the tear as if it were two straight tears, extending one and sewing this first, then sewing up the other. If there is a strain on it, finish in the manner of the straight tear using a patch underneath and stitching on the right side.

All manner of rips and tears may be mended by the above mentioned process.

Seat repairs on trousers are very common. In case the seat is simply thin and not too badly worn, a couple of big patches similar to the goods worked on, may be stuck to the inside of the pants with rubber tissue.

This may then be placed on the machine and the patches quilted in, that is, sewed up and down or around and around or crosswise until the patch is sewed so tightly that it is in reality a part of the garment.

When the seat of the pants is too worn, patches must be set in. This is much more difficult work than quilting in the patches. Get material that matches the garment worked on. Cut out the bad places squarely so a square patch will be needed. Make this patch a half an inch larg-

er all around than the hole. Clip off each corner of the patch about a quarter of an inch and turn back the edges until a square is formed. Now slit the corners of the cloth surrounding the hole and turn back the edges a quarter of an inch. Place the patch in the hole. When the edges of each are turned back, the patch should fit the hole exactly. It will now be a simple matter to sew in the patch. This may be done by basting in first and then stitching the turned-back edges with a machine, and if strength is required, paste on a big patch underneath and stitch on the outside with parallel stitchings as in case of the re-inforced tear.

Shortening or Lengthening Pants.

This is a simple operation and because it is so simple is the very reason it is so often bungled. For plain bottom trousers, proceed as follows:

Rip out the hem, get the desired length, turn up the hem, then baste to be sure the bottoms are both even. Now use rubber tissue to stick up the turned-up edges or better still, sew.

Pants With Cuffs:

Get the desired length of the pants and add to this, one and one-half inches, the regulation width for cuffs (if you wish a two inch cuff add two inches, etc.) Now stick or sew up the turned up edges being sure to have plenty of turn-up, in this case about two and one half inches is required. You really have plain bottom pants one and one-half inches too long. Press back the cuffs the desired width and tack the outside and inside seams.

RUBBER TISSUE AND ITS USES

Tailors, cleaners, and pressers use a great amount of rubber tissue. They find that it is invaluable for sticking up bottoms of pants, mending rips and tears in woolen, cotton, silk and rubbercoat materials. For quick repairing, there is absolutely nothing that can beat it. This is why it is valuable for the household also. With a little rubber tissue on hand, the house wife can always mend and patch

most any difficult repair in a jiffy. It is the finest thing ever invented for temporary repairing. In many cases, however, the repairing may be made permanent. Rubber tissue is a by-product of rubber and as rubber is always injured by the dry cleaning process, any patch or repair made with rubber tissue must be repaired again after the garment has been dry cleaned. This is the only fault to be found with this repair-agent.

How to Use Rubber Tissue:

In applying rubber tissue, turn the garment inside out and work directly on the cloth to be repaired. Smooth out the tear carefully, being sure to get the edges together perfectly. The more careful one is with this operation, the neater will be the job. When the cloth is arranged just as you wish it to appear after completion, place on enough rubber tissue to cover the tear. Now lay on the patch carefully, using the same kind of material as garment on which you are working. Place a moderately heated iron on this patch, and leave it just long enough to melt the tissue so it will stick to both fabrics. A little practice is necessary to be able to judge the correct amount of heat to be used. Insufficient heat will not melt the tissue and too much heat will kill it. However, if a moderately heated iron is placed on ordinary fabrics, five to ten seconds should be sufficient to paste them together.

How to Stick up Bottoms of Pants Legs:

Turn the garment inside out and slide the leg to be cemented upon the narrow end of the pressing buck for convenience in sticking. Place enough tissue in the turn-up to go completely around it and apply the heat directly to the hem, working around the leg until finished.

Rubber tissue turns a slightly lighter color when heated, so in mending repairs, be careful to keep the edges together so that tissue will not be visible.

Light-colored clothing, and especially silks should not be mended with rubber tissue.

Should one get a smear of rubber tissue on the outside

of a garment, a simple method for removing it is to sponge it off with gasoline or benzine.

REMOVING SHINE FROM WOOLENS

Buy five cents worth of powdered alum and dissolve a portion of this (about the proportion of one part alum to sixteen parts water) in clear water. Sponge the gloss spots and streaks. If necessary, sponge the whole suit, rubbing the very bad places vigorously and long. Let dry, and press with much steam, brushing as you press. Never press heavily! If shine yet remains, take emery paper or the finest grade of sandpaper and gently rub these spots in the direction of the pile, being careful not to injure the cloth in any way. This will raise the new pile to take the place of the nap that is worn away. To finish, smooth the sandpaper marks off with a cloth similar to the garment on which you have worked. Lastly brush with a good stiff brush. Very threadbare garments should not be tried by this method. Steam them only. It is always best to use this process after dry cleaning, as this in itself tends to fluff and raise the nap. If you do not have the machinery for dry cleaning, be sure to brush and shake the garments until fairly clean.

If in pressing, either with a machine or hand iron, you are careless enough to gloss clothes (blue serges and clay worsteds particularly) immediately apply more steam to the glossy spots and brush briskly. This usually removes such shine.

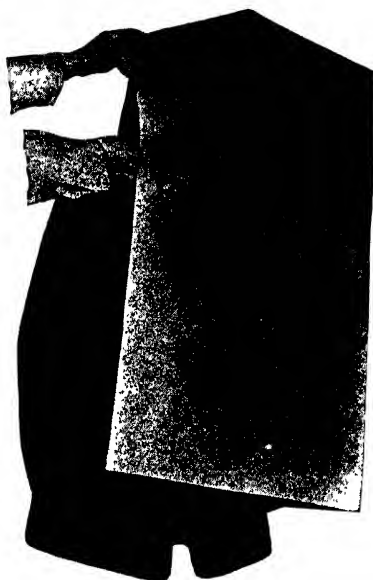
Hot vinegar sponged over shiny spots will aid in their removal.

How to Clean the Pressing Irons:

It is well to keep the pressing irons fairly clean at all times, for in many cases the irons are used directly on the fabrics pressed. To clean these effectively and quickly soak a cloth in a little weak solution of oxalic acid and scour the bottom of the iron briskly with this. This method will remove all wax, rust and any other foreign matter that may be adhering to the irons.

MOTH PROTECTION

Dry cleaning will destroy any moth eggs that may be in the clothing, and a good hot pressing will usually destroy any other germs that get by the cleaning. One way to protect clothes from moths is to pour a little cedar oil in a small dish and place this in the clothes-closet where your spare clothes ought to be hanging the year round. The cedar oil will gradually be absorbed by the air so every month renew the supply. All out-of-season clothing should be dry cleaned, and hung up, as soon as cast off. In this way, the garments not only have moth protection, but will last longer having been hung up clean.



Another good method is to dry clean and press the garments and hang them in a heavy moth-proof paper bag. The garments may be placed on the ordinary coat hanger

and the bag slipped over this and then sealed both at the top and bottom. This is the best and surest method to keep nice clothes, nice. These bags are on sale at most drug stores.

HOW TO FOLD AND PACK GARMENTS

There are numerous methods employed in folding and packing garments but very few that are successful. The correct fold will avoid wrinkles and creases to a great extent. Pants, vests, skirts and even dresses are easily packed, requiring but careful folding, so no explanation need be given. Coats and jackets seem to be the most difficult for the average person to fold correctly.

The simplest and quickest method for folding these garments may be used without employing the table and anyone proficient in it, can execute this fold in a second's time. It is as follows:



1. Hold the coat by the collar, turn it inside out, and

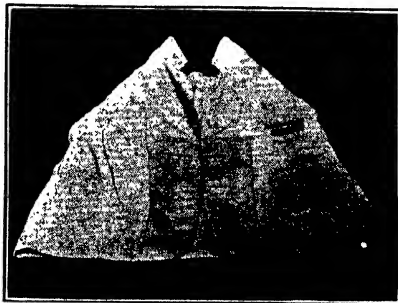
force one sleeve-head into the other which will bring the lapels together.

2. Shake out the wrinkles carefully, and fold lengthwise.
3. Fold crosswise once so the collar will touch the tail of the coat.

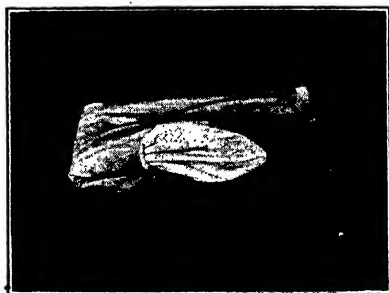
Another and Better Method of Coat Folding:

This is a slower method but has an advantage in that the wrinkles may be smoothed out as the coat is being folded. Proceed as follows:

1. Lay the coat on the table, lining down. This will bring the sleeves to the top.



2. Place the sleeves parallel to the coat edges and fold each portion over its respective sleeve so these edges merely touch. If the coat is extra large have the one side overlap the other several inches.
3. Fold the coat lengthwise.

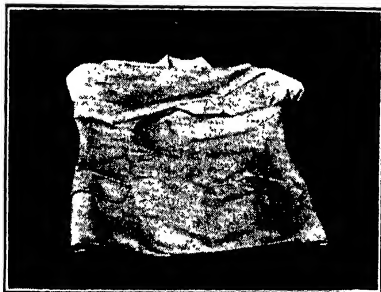


4. Fold the coat crosswise.

Coat Folding for Small Packages:

When the coat or jacket is to be folded into a small space, the following method is employed. Ninety per cent. of the tailors in the country use this method.

1. Lay the coat, back down, on a table with one lapel and front overlapping the other lapel and front.



2. Cross the sleeves carefully, high up, so the ends of

the sleeves are up to and on either side of the collar.



3. Fold the lower two-thirds of the coat over the upper crossed sleeves and collar.

CHAPTER VI

Hat Cleaning

1

HAT CLEANING WITHOUT BLOCKING.

The cleaning of hats may be divided into two classes, namely: the cleaning of felt hats and the cleaning of straw hats. In the first class we have in a general way, the dark felts and the white felts, which as a rule can be cleaned by the dry process. In the second class we have the ordinary straw and panama hats. These are not dry cleaned as the felts but cleaned by the opposite method—wet cleaning. There are numerous ways of cleaning hats but only a few favored methods will be mentioned here which have proven their superiority and worth.



DARK FELT HAT CLEANING

Most of these hats that need cleaning are flimsy, filled with dust and soot, and usually contain grease and other spots of that nature. Many times in soft hats the sizing or finish of the hat has crumbled and appears as dust. This together with the loose dirt must be removed before the cleaning proper of the hat is started. To do this, beat it gently with a light beater and finish by brushing well with any stiff brush. If no reblocking is to be done, there is no need of removing the trimmings. Brush the hat with clear gasoline inside and out. If extra heavy with grease use a light gasoline soap solution and rinse well with clear gasoline. Dry with a cloth and hang in the open air.

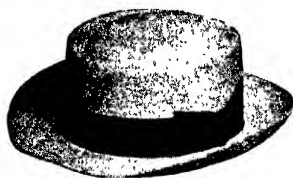
The reblocking of felts cannot be done successfully un-

less the proper blocks are used. We advise one, therefore, to be very careful in dry cleaning all hats so reblocking will not be necessary. We will not go into the discussion of hat blocking as it is a business all by itself. Nevertheless to improve the appearance of any hat it is advisable to put on a new outside band. An examination of the old band will be sufficient to instruct one in the art of replacing it. Do not draw the band too tightly at the top and be sure to tack it with invisible stitching about one inch apart at the bottom. Hold the rim of the hat over the tea-kettle and shape it to the proper curve with the fingers.

Another method which is widely used is sponging with carbon tetrachloride. The grease spots are usually hair-oils, vaselins, or face creams. These are successfully cleaned with the last mentioned chemical. Many hat cleaners use this as the base cleaner, claiming the gasoline serves to spread the grease spots on felts rather than to remove them.

CLEANING WHITE FELT HATS

White hats, either beaver or felt, are very difficult to clean and even successful cleaners have much trouble with them. Dry cleaning does not always renovate them. A paste of coarse cornmeal and gasoline or a paste of magnesia powder and gasoline rubbed on after a gasoline brushing tends to whiten and bleach them to some extent.



CLEANING PANAMAS AND STRAW HATS

One of the best and simplest formulas for cleaning straw and panama hats is the following:

Take one half teaspoonful of magnesia powder, one teaspoonful of oxalic acid crystals and mix in a quart bottle,

three quarters full of water. Shake it well and let stand for fifteen minutes. Now dilute this sixteen times in water. It will not be necessary to use the entire bottle full at one time as the mixture will keep indefinitely.

Put this solution into a small dishpan for convenience. The proper way to proceed now is to remove both bands, put the hat in and wash it thoroughly with a brush and rinse with water, but unless one is supplied with the regular blocks for shaping, this is not advisable as the panama may lose its shape by too much wetting. Instead, take a small sponge or cloth and rub the hat all over with the fluid until clean, being careful not to get the hat too wet. Rinse by using clear water. Now place in a good sunlight to dry.

Should the oxalic acid get on the hat band and turn it brown, a little ammonia or acetic acid will restore the original color.

If perspiration or grease stains are left on the panama that the oxalic acid solution does not remove, rub such spots with gasoline until they disappear.

Bleaching Panama Hats:

Straw hats do not require bleaching—only panamas. When the cleaned hat is thoroughly dry, the panama must be bleached. To prepare the bleach, mix common sulphur in equal parts of water and peroxide until a soft paste is made. Add a little good mucilage to make it adhere to the hat. Smear this all over the hat with a small brush. Dry in the sun and brush well. The hat will come out like new.

Hat Cleaner No. 2.

Another simple method for cleaning straws and panamas without removing the band is the following: Make a solution of chipped castile soap and warm water. Use two parts of this to one part grain alcohol for the hat cleaner. Now brush the hat thoroughly with this and sponge off quickly so as not to damage the straw too much. Rub dry with old cotton cloths or better still, cheesecloth.

Now make an oxalic-acetic bleach by dissolving as much oxalic as 10 per cent acetic acid will absorb. Mix this bleach with four times its volume of wood alcohol. Rub this mixture briskly all over the hat applying it with cheesecloth. Then sponge lightly all over with water for the rinse. Dry in bright sunlight and the hat will be ready to wear.

Hat Cleaner No. 3.

A quick method to use for cleaning without reblocking is to use an aqua ammonia soap solution. To make this scrape up some castile soap in a bottle and dissolve it by pouring in a little warm or hot water. When cool add a little concentrated ammonia.

Take a small sponge and rub the hat all over with this solution very quickly. It will remove the dirt at once. Rub the hat dry with cheesecloth and place in the sunlight for a few minutes.

Should one desire to start in the hat cleaning and blocking business Peppas and Alex Co., Chicago, are the people to write to for they are able to furnish any sized equipment.

This firm is one of the oldest and most reliable in the business. They offer free instructions regarding hat blocking.

CHAPTER VII

Tips and Helps for the Amateur

Be sure to soap the dirty spots before dry cleaning.

In sponging silks, avoid wrinkles, dry streaks, slowness.

In spotting whites, tans, and greys, rub the spots out dry to avoid rings.

The most important thing in steam cleaning is elbow grease.

- Hang all white clothes in the sunlight; all colored clothes in the shade.

Suede shoes may be brightened by rubbing gently with pumice or sandpaper.

It is said that artificial flowers may be freshened by holding in steam.

Do not rub silks harshly in spotting or you will leave a discoloration that is immovable.

Cotton does not dry clean as perfectly as wool and silk.

Most all cotton clothing, especially whites are steam-cleaned.

A cup of salt added to the last rinse will prevent wet washed clothes from freezing so stiffly on cold days.

HOW TO FIRE-PROOF GARMENTS

Wash goods may be made non-inflammable by washing in a strong solution of alum and water. This would be a sensible chemical to add to the starch solution of children's garments and lace curtains.

HOW TO WATER-PROOF SILKS

It is said that goods handled through a solution of paraffine dissolved in gasoline or carbon tetrachloride will water-proof any silk and also add to the luster and finish of the fabric without the least injury.

SECRETS OF DRY CLEANING

DEODORIZING GASOLINE

Gasoline, naphtha or benzine may be deodorized in small quantities by mixing with a little oil of wintergreen. This process usually does away with the disagreeable odor entirely and gives the fluid instead a sweet, pleasing smell.

AMMONIA FOR DRY CLEANING

A little ammonia added to the dry cleaning soap or poured into the gasoline will aid in washing the very dirty garments, and especially the cotton linings. Do not use this on colored and delicate garments.

HOW TO TEST CLOTH FOR WOOL, SILK AND COTTON

Here is an absolute test for wool, silk, and cotton. It is so simple that some people will not believe it, but it is the test the writer has been using for several years and is reliable. If more people would apply this test when buying woolen and silken garments, what a surprise the merchants over the country would have when they find out that the woolen and silken fabrics they advertise are sometimes of cheaper material.

The test is this:

Take a small sample and fire it with a match. It holds its original shape, if you can see the grain or weave of the cloth, it is cotton or dyed so heavily that it has lost all woolen or silken properties, but if it burns with a sputter and smells like burning hair, bubbles and twists out of shape, it is all wool or pure silk. Sometimes it is wool and cotton mixed; in this case you can see the cotton threads which do not twist and burn as the wool. The reason that silk and wool burn like hair is that they are animal matter, the wool actually being sheep's hair or wool, and the silk is the product of the silk worm.

ANOTHER TEST FOR WOOL

Buy an ounce of caustic potash from the druggist. (Caustic potash burns severely so do not touch it with your

hands.) Dissolve in a pint of cold water, using an agate pan. Boil your sample of cloth for ten minutes. All the wool will dissolve leaving the cotton and other materials. Wash the pan carefully after this test, using vinegar to remove the potash

DRY CLEANING AND TAILORING TERMS

"Dry Cleaning" is the process of cleaning or renovating wearing apparel, clothes or other fabrics or textiles, or any other thing usually with inflammable liquid.

- "Sponging" is the removal of dirt or grease, etc., by local application of inflammable liquid or water. In sponging a suit usually gasoline alone is used, in sponging silk usually water is used.

"Busheling" is the repairing or altering of garments brought in to the cleaner usually to be cleaned and pressed as well. A 'bushelman' is the man who does this repairing or altering.

The tailor's 'goose' is the heavy pressing iron used by tailors and pressers for the pressing of garments.

"Steam Cleaning," "Wet Cleaning" or "Scouring" are the same process, meaning to the outsider merely a good scrubbing with lots of water and soap plus elbow grease.

"Buck" or "Pressing Buck," is the instrument on which the garments are placed when pressing or sponging is to be done.

•
"Spotting" means the removing of spots and stains from garments.

"Cheeseclothing" is the process of rubbing the spot dry and ringless with cheesecloth. This will eradicate 'rings' if properly done.

"Benzine Soap", Gasoline Soap" are terms used for dry cleaning soap.

DRY DYEING

Many individuals and even professional cleaners resort to dry dyeing. Laces, cotton waists, satin slippers, feathers, and numerous articles can be colored by this process. Ordinary tubes of oil paint, on sale by any druggist, mixed with gasoline, will furnish the dye. Any color, or combination of shades can be mixed by combining the different colors. All articles must be clean and dry before dry dyeing can be successfully accomplished. No heating is required. Simply dip the article to be dyed into this mixture and leave a short time. A little experimenting will help you to become proficient. Kid and satin slippers are painted with this coloring instead of dipped. The dye will keep indefinitely if bottled.

Dry dyes are not permanent and usually fade in the bright sunlight but serve the purpose for special hurry-up occasions.

HOW TO DRY CLEAN WITHOUT DIPPING

Many small articles such as woolen and silken collars and cuffs, either sewed to the dress or detached, may be brushed with clean gasoline and in many cases cleaned satisfactorily. Dry the article first and then with a small brush or sponge, lightly work a little gasoline all over it. No soap is necessary. This is a convenient method to use when the white collar and cuffs are not removable from a dark dress. The collar and cuffs will show the dirt first and only these, in place of the whole garment, will need to be cleaned.

HOW TO BRUSH LINT AND DUST FROM VELOURS; BROADCLOTHS AND LIKE FABRICS



An easy way to dust these garments that hold the lint and powder so tenaciously is to wet the brush slightly be-

fore and during brushing. The brush held in steam from the tea kettle an instant is even better as it moistens the bristles without wetting them. The dust from the garments is held in the brush by this method so a thorough cleaning of it is necessary after such dusting.

HOW TO RENEW COLORS ON SILKS THAT ARE NOT TOO BADLY CUT BY RUBBING

This method is used by the best of spotters. Get a juicy pine stick and point it. Wrap the pointed end in cotton cloths and saturate in olive oil. Let it soak for 12 hours, then touch the spotted portion lightly with this dauber. Many times when everything else fails this simple method has the miraculous power of renewing the lost color.

CHAPTER VIII

To the Advanced Cleaner



HOW DRY CLEANING HAS LESSENED THE MORTALITY OF MAN.

It is conceded by reliable authorities that the dry cleaning industry has played an important part in lessening the mortality of man. Before the detergent power of chemicals for clothes cleaning was discovered some sixty years ago, the average life of man had gradually decreased until it was but little over thirty years. It now has increased to nearly forty years and a great deal of this increase may be traced directly to dry cleaning. This may seem like rather a strong statement but nevertheless the dry cleaners are here to prove that they have helped materially in the lengthening of the average life.

We all know that the largest percent. of diseases and deaths is due to germs and germ infections. We also know that dry cleaning in itself will remove all filth and dust bacteria from clothing and in many cases will kill the Bacteria. Hot steam pressing will destroy most of the Bacter-

ia that dry cleaning does not remove and thus this combination must have played a wonderful part in the prevention of sickness and death. For when we consider that we spend at least one-third or more of our time in bed with the body in a continual change from fevers and sickness, throwing off perspiration and germs into the absorbing bed clothes that can only be successfully germ-cleaned by dry cleaning; when we consider the thousands and ten of thousands of Bacteria the average suit or outer garment collects, simply through continued wear and absorption of Bacteria laden dust; and when we realize the millions of articles consisting of wearing apparel, bed clothes, and household articles, cleaned and made germless daily by dry cleaners, we certainly must give this new industry a great amount of credit for the added half score of years to the average life.

Few people realize the Bacteria-laden condition of the city atmosphere and for this reason we are quoting the following excerpt from —The National Food and Health Book, by Robert A. Harrison.

"Dust is a little of everything. Air and dust bacteria are not necessarily harmful, but may have among them those which produce disease. Dr. Michael Prudden gives the results of attempts to count the bacteria in the dust of New York streets. A culture plate of three and one-half inches in diameter was exposed for five minutes with the following results: Central Park, near street, collected 499 bacteria, Union Square, collected 214 bacteria; a large dry goods store, collected 199 bacteria; and a street while being swept collected 5,810 bacteria.

It has been found that moulds, yeasts and bacteria are carried into the air by sweeping in the home. In no event should food and dishes be exposed so that the particles from the air can settle upon them. Dusting should be done with a damp cloth. A feather duster scatters micro-organisms in the air. Modern cleaning devices have a great sanitary advantage."

The doctors, possibly are the only class of people who realize the serious danger from bacteria infection and because they realize this, are the greatest advocates of bodily cleanliness and of dry cleaning. More dry cleaning is done per capita for doctors than for any other profession or class of men.

THE EVOLUTION OF DRY CLEANING AND ITS OPPORTUNITIES

As was stated in the first chapter of this book, dry cleaning was discovered in France. It was gradually acquired by others in Europe until it was quite popular on that continent before it was ever introduced to these United States. Even then, it was slow in coming, but since the European dyers introduced it some thirty years ago, the business has been developing with monstrous strides. Twenty-five years ago it was practically unknown here, only about two hundred concerns doing any cleaning whatsoever. The cleaning was accomplished in a very crude and unscientific manner and the machines were few and unsatisfactory. In the next twenty years it developed into ten times the proportions, boasting about two thousand followers. During these years the old fashioned pressing clubs (four suits sponged and pressed for a dollar and a half per month with a shoe shine thrown in every day,) originated, flourished, and died out. Since that time the business has developed with and like the automobile industry, beyond all expectation and imagination, spreading and reaching out into every state in the Union, every town of two thousand inhabitants or over supporting at least one concern and many of the larger cities, actually having scores, so that at the present time we can count about sixteen thousand cleaners and dyers. These figures do not include the countless small tailors who have their cleaning done by wholesale cleaners, or the gypsy-cleaners who only brush out the surface spots. Many of the larger concerns have developed in a very short time from comparatively nothing, to firms of mammoth proportions, employing hundreds of men and reaching out for many miles around to the numerous smaller towns for

additional business. That the people know and realize the importance of the Art of Dry Cleaning is proven by the remarkable growth of this industry.

But the cleaning business is still in its infancy. The United States Bureau of Census has not incorporated the Cleaning and Dyeing Industry but in a few years time, probably with the next Official Census, it will be developed to such gigantic proportions, that the United States Government will be compelled to recognize it. The field today is immense for the young cleaner! There are thousands and tens of thousands of towns right now, and there are tens of thousands that are springing up, yes, actually like mushrooms in the night, so rapid is their growth, that will be real gold mines to the progressive small cleaner. There are millions of people living in or near these towns who have not yet fully realized the value of Dry Cleaning, for the renovation and preservation of all kinds of garments as do the people living nearer the cleaners'.

The town that had one cleaner five years ago, has three or four now, and the same town will be able and willing to support more as the population increases and the general public is educated by the cleaners' advertising.

This is the age of dress. The average housewife possesses three or more dresses, a couple of coats, a few waists and skirts, besides kid gloves and slippers all of which must be renovated ever so often. The husband has nearly as much clothing, all to be kept cleaned and creased. The son and daughter may not have such wardrobes but they follow in the footsteps of their parents and come even oftener to the cleaner. Many of this younger generation are actually ashamed to appear in public places unless the creases are sharp, the pleats straight, and the garments spotless. Even grandma with her hug-me-tights and baby with its white robe and coat, do not escape the cleaner. The country is prosperous and prosperity is the life of all successes in any business.

There is no business with so little capital invested, in which the profits are so great. A cleaner is selling his

labor or, rather, the product of his labor. He is not investing heavily in merchandise to be placed on his shelves to spoil or get out of date. His only investment is the know-how and the equipment. Should he have these and a suitable location the success or failure of his business depends entirely on himself.

This is a business that appeals to all classes. The poor man brings in his old suit to be made like new; the rich man brings in his new suit to be kept new. Nor do hard times affect him. Then people are prone to economize in everything, especially clothing, and in doing so pay their money to the cleaner for clothes renovation rather than to the clothier for new garments.

The Dry Cleaning business is here to stay. The people cannot get along without it. They demand it now as they do their butcher, baker, and candlestick maker. It will ever be an increasing rather than a decreasing business. If you are figuring on entering the business, start immediately while chances for growth and profit are the best.

It is erroneous to think that anyone can clean and press all kinds of garments perfectly should they have at their command the necessary equipment of washers, extractor, glove-machine, still, drying room or drying tumbler, steam press and pressing irons, without the adequate knowledge of textiles and a working knowledge of the methods that should be employed. Nor does one have to acquire a wonderful amount of knowledge with which to start, the rudiments of the cleaners' art being sufficient if the person is backed by common sense and a realization of the importance of self-confidence in the handling of the various textiles.

Experience is the best teacher, we all know, and without it one must not consider one self a first class cleaner. Many of the older cleaners learned the business by running the gauntlet of hard knocks and private experiments, but in the present day this is not considered advisable with the library of cleaning wisdom so easily obtainable.

It is also erroneous to believe that an expensive and complicated plant is always required. The high-priced plants are always owned by large concerns that have a great amount of clothes to be cleaned every day. Small plants consisting of a washer or two, an extractor, a still, a drying room or drying tumbler, a steam boiler, either for hand or for power and ranging in cost from one hundred dollars to a few thousand, can clean just as rapidly and turn out just as good clean work, everything being equal, as the mammoth plants costing ten to three hundred thousand dollars, but of course fewer articles in the same given time. Time usually is a great essential to the large cleaner but not so important to the small one.

These large concerns grew out of small plants, and invariably bought such machinery in the first place as could not be utilized when they grew. Therefore in starting up in the dry cleaning business, it is wisdom to buy such machinery as can be employed to the best advantage later on when the business will demand a more complete or larger plant. For example, if contemplating a small hand outfit, buy machines to which power attachments can be added. In this way you will not have to buy new machines but only these attachments. Or if you wish a power plant with capacity for one hundred suits per day, buy machines that will handle twice that amount.

It is advisable for anyone who wishes to enter this profession to acquire some knowledge of the practical and mechanical features of the Dry Cleaning business, such as this volume affords. To further this and acquire a working knowledge it would be well to serve under a reliable cleaner for a short time. If this cannot be done, at least visit a few good cleaning plants, read your trade journals, absorb all the cleaning information you can from all good sources, saturate yourself with cleaning knowledge, talk it, live it and then do it.

It is comical to see the smile that comes to the face of the successful cleaner when he hears of a man starting in the cleaning business with only a small working knowledge

of the business, with insufficient funds for equipment, and few and meager methods. The successful cleaner knows that that was the way in which he started; that he crawled first in the darkness of poor equipment, lack of capital and insufficient knowledge before he emerged walking in success and prosperity in his present day business. He was successful because he was a practical business man as well as a hustler, and doubtless he smiles now at the beginner's poor equipment and methods because he feels doubtful as to his success unless he starts with a properly equipment establishment. He somehow has forgotten his own early struggles and does not realize that the new man might be a business man and hustler too.

One big purpose of this book, as was stated before, is not to encourage anyone to enter the business without proper equipment, but rather to help any, no matter how poorly he is equipped, who has started in for himself, or who wishes to do so.

STATIC ELECTRICITY.

Rub a cat's back, or brush your own hair briskly and you will have generated static electricity. Fine soft woolen clothing such as cashmere and some silks when tumbled or rubbed a great deal generate this same kind of electricity. Weighted silks are good conductors of electricity due to the fact that they are weighed with tin or some other metal which in itself is a good conductor. If there is a spark produced in the washers when gasoline vapor is present, there is an explosion and fire. This is why most cleaners have their machines grounded for protection as the electricity will pass off into the ground in this way. Even then they are not entirely safe unless the cleaner who operates the washers is also grounded. This is done by placing a chain or wire from his wrist to the machine from which he is removing clothes. In this way the spark is not produced, but the electricity passes through the chain conductor to the machine instead of jumping from his hand to the machine and probably starting a bad fire. Usually no static

electricity or spark is caused when soap is used. The majority of cleaners claim that if ammonia is employed either in the soap or cleaning fluid, no spark will be produced. The same is true of carbon tetrachloride. This chemical may be used as a fire-extinguisher also. There seems to be a peculiar preventative in these two chemicals that the chemists have not been able to explain. We can use these chemicals when washing clothes but not in the rinse, for nothing but the driest and purest gasoline should be used there, and that is when the fires occur. A crackling sound will be heard. When this occurs one should submerge the garment and let it stand for a time. When it is removed, keep hold of it with both hands so there will be no chance of a spark passing from the garment to the hand. There is no trouble when the garment is submerged but on exposing it to the air, sparks may pass from the article to the gasoline or from the hand to the article. If the atmosphere is damp there will be no trouble as dampness is a poor conductor of electricity. It is well, then, to have a little steam escaping all the time in the cleaning room. If you do this, take care that the garments to be cleaned do not absorb any of the moisture.

A word about grounding your machines. If you have an underground tank system, your machines are sufficiently grounded. If you do not, ground your machines, scraping the wires and metal of the machine well to make a better connection and pass the free end of the wire well into the ground.

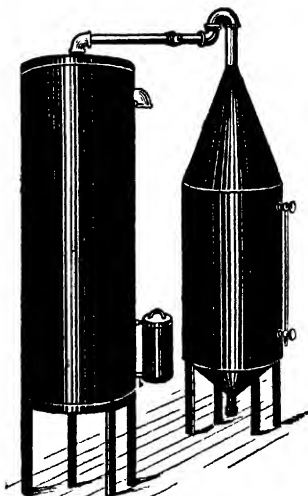
If your gasoline is very volatile leave the door of the machine open most of the time. If you do not, the machines will burst into flames on exposing to the air should you suddenly open the door.

Most of the fires in dry cleaning plants are caused by this static electricity and while the first class cleaners are always in fear of a fire bursting out and are not very sure of no static electricity fires these are the above cautions to be observed.

There is small chance for fires of this origin if you clean the clothes by hand in the open air as the individual cleaner should do.

HOW TO SETTLE GASOLINE

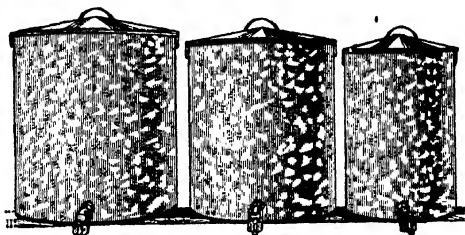
By successfully settling most of the gasoline used in cleaning one will save thirty per cent. more in gasoline than



(A Steam Still)

by resorting to stilling entirely. Stilling is a fine process and absolutely necessary in many cases where too much soap has been used and the oleic acid from the soap has decomposed and caused a very obnoxious odor, which is almost impossible to be removed from the garments cleaned, or if the soapy gasoline has stood too long and has become rancid. Settling gasoline is practised by all cleaners to some extent but largely among the small cleaners who do not operate stills. Settled gasoline that contains soap is

naturally yellowish in appearance, and is considered to be excellent for dark and grey clothes cleaning and fur cleaning. It has a cleansing power that is almost unbelievable. In using this settled gasoline, make it a practice to use new stuff for the rinse. Never use settled gasoline for whites and gloves.



A word about settling tanks. Use three or four tanks for ordinary purposes. The sixty gallon tanks that the Oil Companies sell will suffice. Put in two faucets, one near the bottom and the other four inches above this. Drain the clean stuff from the upper and the settlings from the lower. The lower faucet should be the larger as the dirt and residue will clog up a small pipe. If it is unhandy to have faucets, open the head of your tanks large enough to dip out the gas with a bucket. To clean a tank, tip upside down and wash with hot soapy water. A steam pipe inserted in the tank full of soapy water and allowed to boil twenty minutes, is the best and surest way to clean these tanks. Clean out the tanks frequently and keep mixing in new gas and one will never be bothered with odor in the clothes. The conical and removable bottom tanks that are on the market would be something worth investigating.

The old method of settling gasoline is by using sulphuric acid. This is the most dangerous method also, not merely that it is a rank poison in itself but that after being settled, if any particles of the acid are skimmed off the settling

tanks, either by accidental shaking or stirring, they will turn the dark goods red or eat big patches off other clothing. We will not consider this method on account of these dangers.

Settler No. 1:

Take three-quarters of a pint of denatured alcohol to every five gallons of dirty gasoline, stir thoroughly with a wooden paddle, and let set for half a day. The liquid will be a slight brownish color, but will have strong cleaning properties and can be used on blacks, blues, browns or any dark or heavy color. After a few treatments of this formula, very little wood alcohol may be needed. This no doubt is a good formula for very cold weather when any water mixture might freeze.

Settler No. 2:

Eight ounces of concentrated ammonia stirred into twenty-five gallons of oil will settle it in one hour as a rule, giving one a perfectly clear mixture that has remarkable cleaning properties without the aid of soap. The ammonia will whiten the cotton linings. This formula is excellent when you need more gasoline in a hurry, but we advise against too often use of it as ammonia acts as a sight bleach on blues and blacks.

Water Mixture Settlers:

The next two settlers are composed mainly of water. Do not use them in extremely cold weather for then they do not have the settling properties as when used in mild or warm temperatures and again, they may freeze and injure the tanks. However, they are easier on the tanks than an acid mixture and are much more economical.

Settler No. 3:

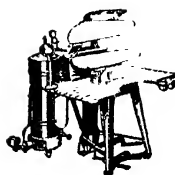
Thoroughly dissolve a quart of sal soda in a gallon of boiling water. Cool before using. A quart of this mixture will settle fifty gallons of very dirty oil.

Settler No. 4:

The best all round settler we have ever discovered is this: Mix one pound of common salt and one pound of Wyandotte soda; thoroughly dissolve in five gallons of boiling water and allow to cool. Stir well. Use a pint for every thirty gallons of oil. Stir the mixture briskly for a few minutes. Let stand for twenty-four hours and you will have clear, clean gasoline ready to be used on anything but whites. Mix the other formulas in occasionally with this one as a basis and you will never be troubled with tanks that will not settle.

In summer it is a good idea to use settler No. 4, as the base settler, occasionally using the others. In winter keep Nos. 3 and 4 in a warm place or they will lose their settling properties. If you have plenty of gasoline or do not clean very often, let the gasoline settle naturally. The cleaners who have underground tanks usually have three or four large settling tanks and settle all their gas by gravitation.

The latest method of cleaning gasoline, now employed in the large plants, is by using a separator which operates on the plan of the common cream separator. This cleans gasoline very rapidly and the same fluid may be used many times in the same day. It no doubt is a money saver for with this machine a little gasoline will go a long ways.



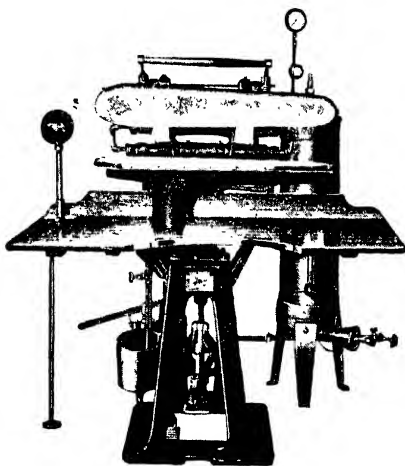
MACHINE

PRESSING

The man who prides himself upon being a faultless dresser is most particular regarding creases. He inspects his clothes with great care and caution, looking first to the trouser crease because this is the only important crease in the gentlemen's dress. The big advantage with the pressing machine is that the garment is set, cured, and dried in the pressing operation. Hot dry steam is evenly distributed over the pressing surface raising the nap and brightening the color and it is done instantly. The finish is very uniform. Another feature is that the clothing is actually sterilized, all odors really removed and the cloth disinfected.

Pressing machines are the finest innovation ever introduced to the back-fired goose-presser. A good machine operator can turn out four or five times the work of the hand presser and do it better if (and don't forget the if) he is a careful operator. We believe that machine work IS ALL WITH THE PRESSER and we not only believe it but KNOW IT. Rough, ragged, double-creased, glossy work can be turned out with ease by any so-called operator, but smooth, perfectly creased work can be done only by the careful presser and he can press six to eight suits an hour. Ladies' and gentlemen's suits, overcoats, pleated skirts, and silks all can be nicely pressed; velvets, broadcloths, plushes, velours, and dyed goods can be steamed successfully. Many garments, especially ladies' clothing, have to be retouched with the hand iron.

Many steam pressing machines are on the market today for the dry cleaner to choose from. From this number, two, The U. S. Hoffman and The American, may be cited as being the most popular with the cleaner in general. Cuts of both machines are shown.



(The American Steam Press)



(U. S. Hoffman Steam Press)

HOW TO OVERCOME THE OVERHEAD EXPENSE.

There are many ways to overcome the bugbear overhead expense that the cleaner and presser has to contend with continuously. Every proprietor tries to economize, but these together with the other expenses, like ambitious men, cannot be kept down. The only thing left to do then, is to

make additional money without adding to or overworking the office force.



Suits Made-to-Order, in other words, Merchant Tailoring, may be handled very nicely and to good advantage if the proprietor is a hustler and a good line of tailoring is secured. This is one of the best additions one can make; the expense is comparatively insignificant and everything made is clear profit. The fashion plates and display lengths are very attractive for the office and lend to it the right atmosphere for the modern cleaner and presser. Also there is very little that must be learned for one to be able to handle this additional business. Every Cleaner knows clothes well and the measuring and taking orders is but a matter of practice. There is no investment, no risk, nothing but profit.

Every good cleaner should have the agency for some good pleating, hemstitching and pecoting concern. There is not a great deal of profit in this unless one handles a bulk of goods, but looking at it from the view-point of accommodation it is a means of getting new customers, especially among the ladies, and of holding old customers.

In the button line, the cleaner either may take the agency for a reliable button manufacturer, or buy a small

outfit himself. If the trade is heavy it will pay the cleaner to invest a few dollars in a small button making machine and hold and create more trade in this manner. There are several button manufacturers who sell outfits on the installment plan.

If you do not have a dyeing department, you at least, should have the agency for one, because, during the season and especially now, since wool and silk are so expensive, there is a great demand for this branch of the business. Usually the dyer will dye clothes for half the price of dyeing and pressing, and your profit will be in finishing them. A nice little profit of two or three hundred dollars may be realized each year if one wishes to push this end of the business.

The Star Cleaning and Dyeing Co., Chicago, are especially good dyers and we heartily recommend this firm to any who has anything in this line. Their dyeing seems to be of better grade than most dyeing firms, and their prices lower.

EQUIPMENT FOR DRY CLEANING.

For those who clean five or more suits a day, other methods than hand cleaning must be employed to facilitate the work and aid in the more rapid handling of the garments. A great deal depends on how much capital one wishes to invest in the equipment. Prices range from one hundred dollars for the smallest outfit to many thousands for the mammoth cleaning works. Hand outfits are cheaper of course, as no belting, shafting or power has to be furnished. On the other hand, power equipment will save time and labor, since several machines may be run at the same time.

The simplest dry cleaning equipment consists of a hand washer and an extractor and a few settling tanks. The cost would depend on the make of machines and ought not to cost more than one hundred dollars.

For the next size add a dry-box for the drying of the clothes and a filter for cleaning gasoline. The approximate cost will be \$150 to \$200.

Still a larger size might include a wet still, a steam boiler and a dusting tumbler. Equipment like this would need either gasoline engine or electric motor power, costing from \$600 to \$1,000.

The next improvement would be a drying tumbler which has a great advantage over the dry room.

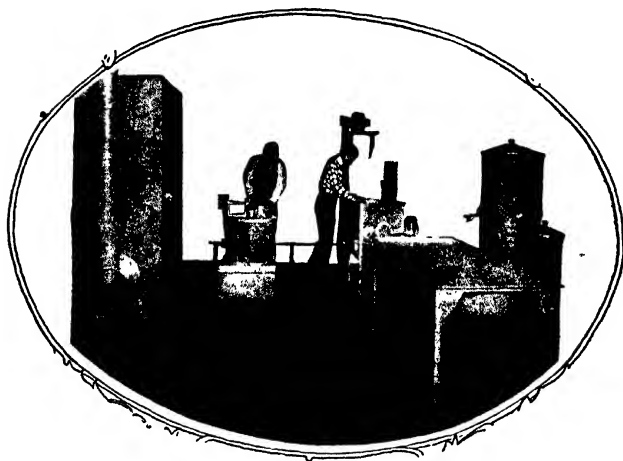
The best equipment would have an underground system for the storage of gasoline. This superior outfit then would consist of two or more washers (one for whites and the other for darks) a glove machine, an extractor, a steam still, a steam boiler, a drying room, a drying and dusting tumbler, and an underground system for the storage of gasoline. A steam pressing machine for the finishing of the clothes and a car for delivering them would be proper. Total cost, \$2,500 and up.

Many cleaners have started in the dry cleaning business with only small hand outfits, and after having added to them, from time to time, have everything mentioned in the last outfit. The machines were bought as needed. In this way the whole outfits virtually paid for themselves and the expense was hardly noticed. We advise all young cleaners to start in a similar manner. Of course, if one intends to do big business from the start, a proper equipment for such business is necessary.

The most difficult thing for the small cleaner, tailor, or anyone who wishes to start up in the cleaning business with a complete, though small plant, is to find such an ideal outfit suitable in every respect and at the same time within limited means. He wishes something that will clean all kinds of clothing, woolens, cottons, silks, laces, net waists, furs, gloves, yes, everything, and these articles to be cleaned speedily and perfectly.

There is one plant that the writer has discovered, adapted for such persons. This is The Baby Grand Plant,

manufactured and sold by the Grand Mfg. Co., Indianapolis, Ind. The writer is not a stockholder in the company nor is he in anyway connected with it, but from closely investigating various small cleaning outfits, honestly believes the Baby Grand is such an ideal plant that this book would not be complete without a mention of it. The accompanying



cut gives a splendid view of this plant and at the first glance you can see how simple the operation is and yet how complete.

Persons who wish heavier machines and larger outfits are referred to The Hickman Mfg. Co., Kansas City, who manufacture everything a dry cleaner needs from hand brushes to underground systems. If you are anxious to equip yourself for big business get in connection with this firm who can help you with any equipment you may wish.

ADVERTISING.

Advertising is one of the biggest words in the English language. It is a sort of a higher education for the whole world. Without it our greatest inventions might just as well have remained uncovered, for only through advertising have the people of today been educated to our modern life.

In its simplest form advertising is nothing more than a solution of the selling problem. All successful firms are live advertisers. There is a difference between being able to deliver the goods and actually delivering them. The difference is advertising. The dead ones seldom over-advertise. Get it into your head right now that if you want to be a successful dry cleaner you must advertise.

You've got to advertise! And don't go into it in a half-hearted manner! The greatest sin you can commit in your business-life is to go at this thing hit-and-miss! You cannot spasmodically advertise and succeed anymore than you can spasmodically open your shop and succeed.

Get a clean-cut idea of what and how you want to advertise, figure how much you can spend per month for the selling end of your business, and then go at it persistently like an honest-to-Gosh business man.

Remember there are four things to always bear in mind if you wish to be a successful advertiser; that the public must see your advertising; that the public must read your advertising; that the public must understand your advertising; and that the public must believe your advertising. The first two conditions, that the public see and read the advertising, will depend where and how you advertise. The last two, how you write your copy and the last one, what your plant is and how you turn out the work.

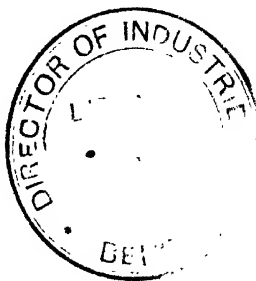
There are numerous ways to advertise—by electric or street signs, billboards, modern delivery car, circulars, ad-

vertising novelties, such as hangers, rules, bundleslips, calendars, tapelines, pencils, etc. The modern delivery car



is a very good medium on account of the moving sign which naturally attracts attention, but we could not possibly suggest any form of advertising that brings better results for the amount of money invested than advertising in newspapers. It provides the best selling source that any dry cleaner and presser can employ. A seasonable newspaper campaign is essential to every up-to-date cleaner. Map out this campaign before you start advertising, insist on the same position in the newspaper, and be regular and consistent about placing and changing your copy. Many cleaners have adopted slogans, such as "We Clean it Clean," "Let us Clean It," etc. No doubt these slogans have their desired effect on the persons who have the cleaning done, as well as do the name-cuts that many cleaners use. They all tend to give the cleaner the individuality or distinctness that the public likes.

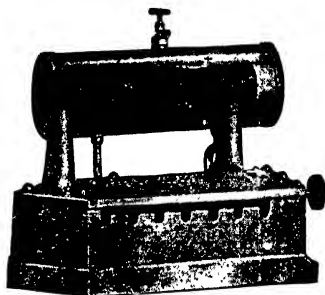
If you are not ashamed of your business, advertise it!



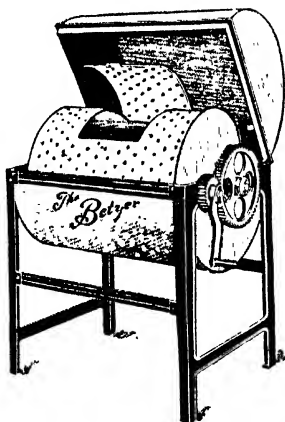
If a better line of equipment could be built for the price at which we build it—we would build it. Inform us of your needs.

Peerless self-heating tailor's iron, all complete within it. self; manufactures its own gas as required, and is entirely fitted for all classes of work.

*The New
Improved*



Hickman Equipment



is complete for the medium sized dry cleaning plant.

Combined Cleaning and Extracting Machines (hand or power). All Metal Dryrooms, Steam Boards, Gasoline Stills Tanks, Brushes, and many other articles, all shown in catalog.

**INFORM US OF YOUR
NEEDS**

Hickman Mfg. Co.

16th and Locust St.,

KANSAS CITY, MO.

Try this simple easy way of Dry Cleaning at home

It's just like washing, only gasoline is used instead of water and a special preparation that takes place of soap, because soap won't work in gasoline.

That preparation is Putnam Dry-Cleaner. One bottle goes a long way and the expense involved in cleaning an article at home is only a matter of cents for what the dry cleaning establishment would charge dollars.

And there's no trouble about doing it either. It's quick, easy and simple. Your maid or laundress can dry clean

gloves suits
laces skirts
fine waists embroidery
ribbons dress goods
feathers woollens
pumps curtains
spats rugs
furs

---dozens of other things, too. Think of the time that's saved and the early use you get of the article.

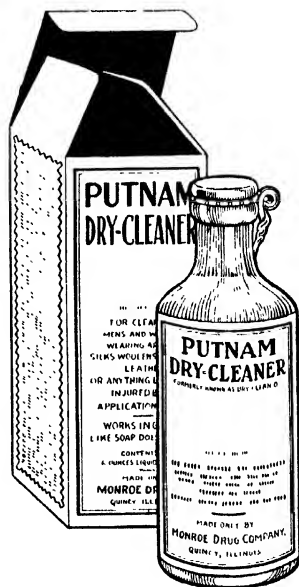
Putnam Dry-Cleaner not only cleans thoroughly but renovates, freshens both color and fabric. It can be used on the most delicate materials without fear of harm being done. It won't change color or shape, never causes any wrinkling or shrinking.

Once you've found how easy it is to dry clean at home you'll never be without Putnam Dry-Cleaner.

Your Druggist sells Putnam Dry Cleaner 25c and 50c bottles. If he can't supply you, write us. We will send bottle, postpaid, 25c. Don't accept substitutes—demand the genuine

MONROE DRUG CO.
Quincy, Ill.

SEND FOR SAMPLE—We will gladly send a sample bottle of Putnam Dry-Cleaner for 4 cents to cover postage.



THE
VOLVOX

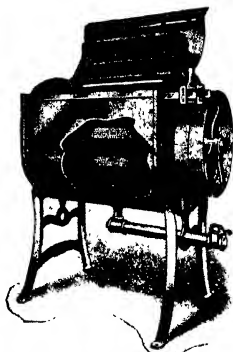
Is the Best
Glove Cleaning
Machine in the
World

Write for Booklet

VOLVOX MACHINE CO., Inc.

335 EAST 54 STREET

NEW YORK



**Build Up
A Paying
Prestige**



A good box creates a good impression.

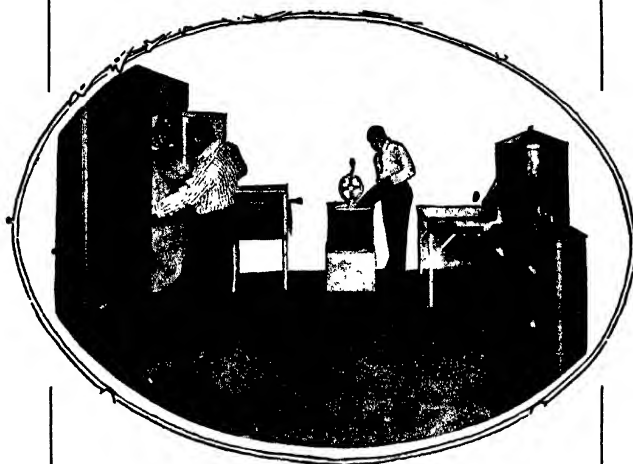
A good impression means a good customer.

You will find there is something "just a little different" in a Lindley Box. The board is ironed down smooth and hard, to give a package of the best carrying qualities.

Tell us the quantity you will probably buy and let us send you some samples and prices.

LINDLEY BOX & PAPER CO.
MARION, INDIANA

Advanced Knowledge



The Baby Grand System

FIRST TO SAIL UNCHARTED SEAS
in the development of the modern plant. Each new
voyage has had its venturesome pilot. It has ever
been the courage of a few that has led the many
to success.

WRITE FOR OUR NEW CATALOG

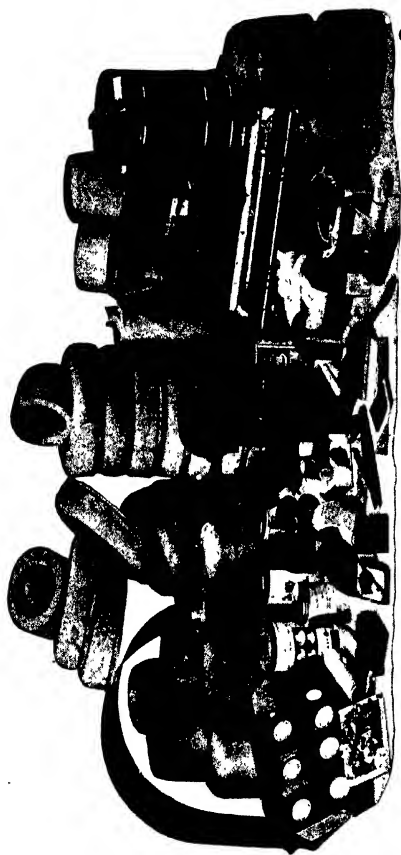
Grand Manufacturing Co.

36 E. South Street.

INDIANAPOLIS, IND.

Dry Cleaners---Increase Your Profits

Write for our Section "H" catalog No. 5



No. 1 Special Paco Hat Cleaning Outfit. \$82.50 F. O. B. Chicago
Put Up A Hat Cleaning Department in connection with your dry cleaning business.
Our No. 1 Hat Cleaning Outfit includes every tool necessary for this kind of work. We send you instructions free.

A Complete Line of Hatters Goods.
Paco Bldg., CLEVELAND,
167-169 West Lake Street, CHICAGO

PEPPAS & ALEX CO.

The Cleaners and Dyers Review

CINCINNATI

Subscription \$1.00 Per Year

The Monthly Journal for
Master Cleaners and Dyers.

Keep informed regarding modern equipment for cleaning and dyeing plants; learn new methods of estimating your costs, effective plans for advertising; keep in touch with the progressive work of associations and trade conditions in general.

If you are not a subscriber send your \$1.00 today to Circulation Department.

The Cleaners and Dyers Review

128 Opera Place

CINCINNATI, OHIO.

“BUCKEYE”

Dry Cleaning

SOAP

Dissolves readily

Rinses freely

Leaves no odor

Brings work out bright and clear

Cleans CLEAN

Saves money on soap bills

Uniform in quality

“**Buckeye**” is used and endorsed by many dry cleaners over the country. It will help you get that reputation for **quality work** that will bring trade to your office.

Samples and Prices On Application

The Davies-Young Soap Co.

Dayton, Ohio

FILMS

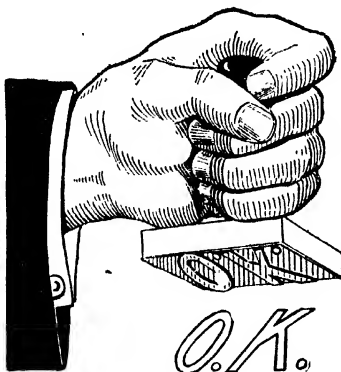
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and Enlarged**

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and charge you only for the prints we make for you.
One trial will convince you that we can please you
with our work. PROMPT AND EFFICIENT SERVICE.

"That Man GALE"

The Man Who Puts the Snap in Snap-Shots

YORK, NEBRASKA



The Star Dyeing

has received the
stamp of approval
from dyers and
cleaners to the
trade all over the
country.

**We dye black and blue every day.
All other colors, every other day.**

No matter what part of the country you are located in we can get your dyeing work back to you in from two to five days after we receive it.

Men's Suits	\$1.00	Ladies' Suits or Dresses	\$1.00
Overcoats	1.00	Long Coats	1.00
Trousers50	Skirts50

No Dry Wrinkles.

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